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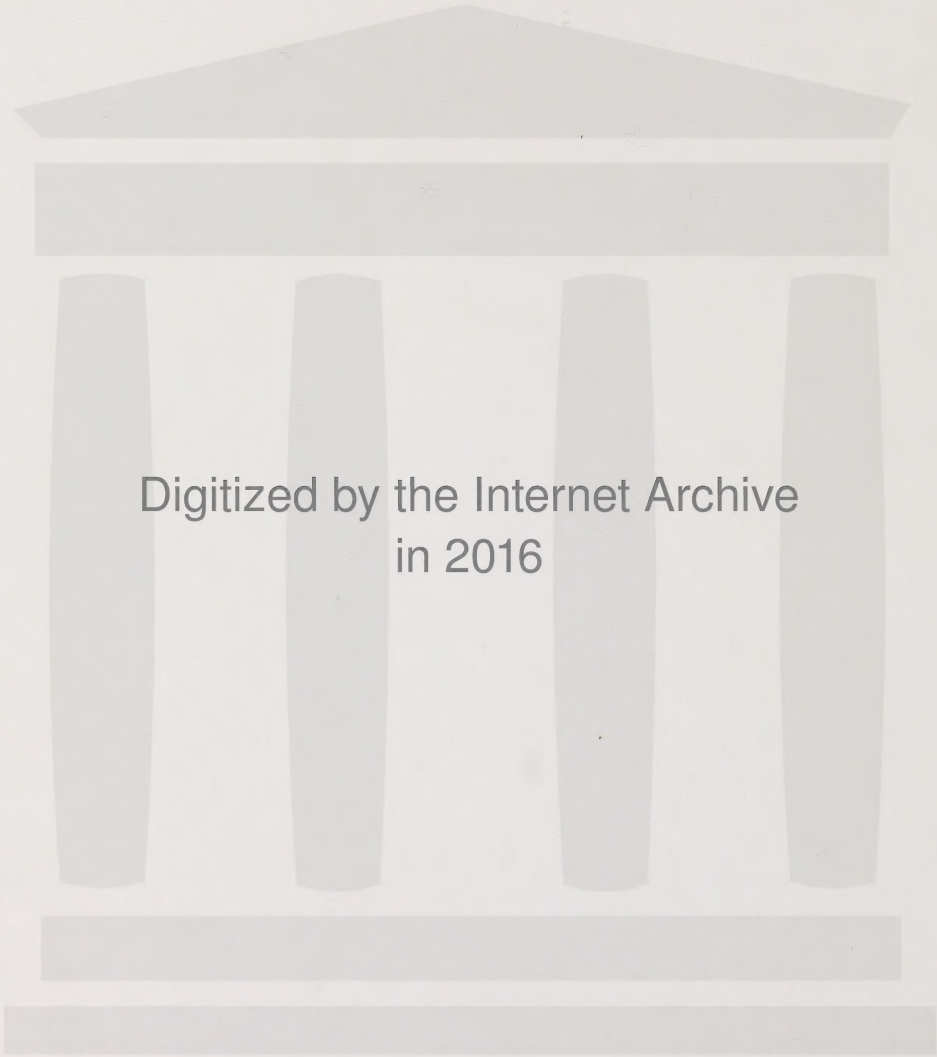
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A *G*rowth and *Y*ield *P*rojection *Sy*stem for Natural and Regenerated Stands Within An Ecologically Based, Enhanced Forest Management Framework

Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands

Shongming Huang, Dave Morgan, Grant Klappstein, Jack Heidt, Yuqing Yang, and Greg Greidanus

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1.0 Introduction

Lodgepole pine (*Pinus contorta* var. *latifolia* Engelm.) is Alberta's provincial tree. It is the most common tree species in the Rocky Mountains and foothill regions, occurring on the eastern slopes of the the Rocky Mountains, as well as in a large zone to the east in boreal regions where it hybirdizes with jack pine (*Pinus banksiana* Lamb.). During the early years of European settlement, lodgepole pine was used by pioneers primarily for fence-posts, fuelwood and cabin construction. Long before that, the Western Plains Indians used these strong, straight, and uniformly tapered trees for the construction of buffalo-skin lodges that led the famous explorers Lewis and Clark to dub them "lodgepole pine".

Today, lodgepole pine continues to be a major contributor to Alberta's forest industry as well as providing protective cover for the vital watersheds of the province's eastern slopes. Although it comprises only about 20 percent of the mature standing timber in Alberta, it accounts for approximately 40 percent of the annual harvest in the province. Lodgepole pine is mostly used for lumber and plywood as well as pulp. The lumber is used primarily in general constructions. Other uses include furniture, flooring, panels, and siding. After pressure treatment with preservatives, lodgepole pine makes excellent mine timbers, railway ties, landscaping and fencing materials, and utility poles.

Lodgepole pine grows well on a wide array of sites. It has a growth optima on similar sites to those of aspen (*Populus tremuloides* Michx.) and white spruce (*Picea glauca* (Moench) Voss); moist, rich, well-aerated sites with friable soils and long, warm growing seasons. Better sites in the Lower Foothills natural subregion of Alberta have these conditions, and succession after wildfire in this subregion is unpredictable and may favour either aspen or lodgepole pine depending on site conditions, history, and chance. Unlike aspen and white spruce, however, lodgepole pine can tolerate sites that have short and irregular growing seasons, poor to very poor nutrient regimes, and a distinct moisture deficit. The Upper Foothills subregion and the Subalpine subregion of Alberta's eastern slopes have extensive areas with these site conditions, although moisture deficits in these high precipitation areas are largely restricted to sites of coarser texture and during periods of unusually low precipitation.

Over the last several decades, both the government and the industry in Alberta have allocated a sizeable amount of time and resources to the development of yield tables for lodgepole pine stands. Forest practitioners and researchers in Alberta have made great strides and gained considerable knowledge on the biology and the growth and yield of lodgepole pine stands. Large amounts of data have been collected and new experiments are being designed and carried out throughout the range of lodgepole pine. While some general trends and consensus have emerged from numerous trials and experiments completed so far, a more accurate quantification and a satisfactory modelling of the growth and yield of lodgepole pine stands under an array of assorted site quality and stand density conditions, has yet to be achieved. Many studies on lodgepole pine focus on case-specific situations with very limited generality.

As Alberta moves strategically and progressively towards the implementation of enhanced forest management (EFM) based on sound and practical ecological principles, more accurate information about the growth and yield of lodgepole pine stands is urgently required to guide practitioners, decision-makers, and planners on the most likely responses of these stands under alternative silvicultural and management strategies. This is particularly true for stands regenerated following harvesting. In addition to providing the essential growth and yield information from which a long-term sustainable annual allowable cut (AAC) can be determined, such information can also be used to assess alternative silvicultural practices such that the most advantageous option can be identified based on pre-specified constraints relating to costs, revenues, utilization standards, rotation ages, product quality, etc.

The increased values and pressures on the timber resources in Alberta, resulting from alternative land uses, landbase withdrawals, mill expansions and the like, means that growth and yield estimates must be accurate enough in the prediction of stand and forest level responses to varying site quality and stand density conditions and management strategies. To choose the best management strategy, it is necessary to have a quantitative means for judging contrasting strategies that emphasizing different tree and stand characteristics, and different management objectives.

As an integral component of a project entitled "GYPSY – A Growth and Yield Projection System for Seed-origin, Planted and Treated Lodgepole Pine Stands Within An Ecologically Based Enhanced Forest

Management (EFM) Framework", a version of GYPSY for seed-origin natural and regenerated lodgepole pine stands was developed. The main objective of this version was to assess and quantify the growth and yield of seed-origin natural and regenerated lodgepole pine stands in relation to site quality, stand density and stand age. This was accomplished by incorporating the potential variables that represent the site and stand density effects into the models that make up the growth and yield projection system. The provincial permanent sample plot (PSP) data base for lodgepole pine was used for developing the base models. This PSP program was initiated in 1960, with the prime objective of developing fully-stocked normal yield tables for stands free of major disturbance. A more detailed description of the PSP system is provided in Alberta Land and Forest Service (2000).

GYPSY can be considered as an integrated model that predicts the development of both natural and regenerated (post-harvest) lodgepole pine stands. One of the notable characteristics of GYPSY is its ability to generate compatible predictions on three levels of detail: whole stand, diameter class/distribution, and individual tree. While intrinsically GYPSY may still be considered as a diameter distribution model in the commonly accepted classification system of three model categories (whole stand, diameter distribution and individual tree), it in fact encompasses many characteristics associated with whole stand models and individual tree models, and can be used as a whole stand model, a diameter class/distribution model and a distance-independent individual tree model. GYPSY can produce individual tree estimates without having the need of developing individual tree models. The predictions generated from GYPSY are guaranteed to be compatible, regardless of the type of model it is assumed to be. This eliminates the need to construct some potentially fairly subjective procedures for reconciling the incompatible predictions that typically arise when different types of model are used.

Definitions for several key variables that are used throughout the text are provided below. These variables represent important conceptual and practical components of the GYPSY model.

Stand density and average diameter – stand density (N) refers to the number of stems per hectare (stems/ha) for trees taller than 1.3 m. Because of the complexities associated with very small trees and the inconsistencies in measuring these trees over the last four decades, GYPSY was developed excluding any tree that is shorter than 1.3 m without a diameter (unless otherwise defined, the word "*diameter*" indicates DBH - diameter outside bark at a breast height of 1.3 m above ground). Average diameter (D) is defined as the arithmetic mean diameter for all trees taller than 1.3 m in the stand.

Because the above definitions for stand density and average diameter are based on the same set of trees (all taller than 1.3 m), they can be considered compatible. If stand density was defined as the total number of stems per ha for all trees in the stand including those shorter than 1.3 m, a compatible measure that corresponds to stand density would be average root collar diameter. It can be problematic sometimes when average diameter is obtained from trees taller than 1.3 m and stand density is obtained from all trees including those shorter than 1.3 m.

Stand density factor – Stand density factor is a new stand density measure developed in GYPSY. It is defined as the stand density at a reference breast height age of 50 years.

Stand density factor (SDF) plays a pivotal role in stand density projections. It resembles the site index (SI) concept. SDF in a mortality model acts like SI in height and site index models.

Top height – Top height (H_{TOP}) is defined as the average height of the 100 largest diameter trees per ha. While this top height definition may appear simple and straightforward, it in fact is one of the most intriguing and ambivalent terms that one will probably ever encounter in growth and yield studies. There are other definitions of top height. The lack of a precise definition for top height is caused by the fact that the size of a sample plot is seldom as large as 1-ha, and the top height trees selected in plots less than 1-ha may not accurately represent the actual, per ha based top height trees. Magnussen (1999) evaluated the biases of top height estimates from different plot sizes. Various remedies were proposed to reduce the biases under different assumptions and constraints (Rennolls 1978; Iles et al. 1990; Soderberg and Nigh 1994; García 1998).

Since the selection of top height trees (largest DBH trees) is objective, consistent and repeatable, the use of top height is recommended. An evaluation of the biases of top height estimates from different

plot sizes suggested that for lodgepole pine stands in Alberta, the biases are negligible, so long as the plot size is equal to or greater than 0.03 ha (Huang et al. 2001a). Thus, in practice, it is recommended that top height be obtained by averaging the heights of three largest DBH trees in each 0.03-ha plot, or four largest DBH trees in each 0.04-ha plot.

Site index – site index is defined as the top height at 50 years breast height age. Site index can also be defined as the top height at 50 years total age. In GYPSY, both definitions of site index are used. Unless a more specific term such as "total age based site index" is used, site index always refers to the top height at 50 years breast height age.

The site index curves developed in GYPSY for seed-origin natural and regenerated lodgepole pine were constructed from repeatedly measured permanent sample plots covering a wide range of sites. Site index curves constructed from PSPs generally produce more realistic stand level height estimates and are often considered more ideal than those constructed from stem analysis data (Curtis 1964; Huang 1997).

Stand height – stand height (H_{DC}) is defined as the average height of dominant and co-dominant trees in the stand. It is one of the stand level variables frequently used to describe site quality. In practice, stand height is usually obtained by averaging the heights of one dominant tree and two co-dominant trees selected in an area of 0.01-ha or larger.

The dominant and co-dominant trees associated with stand height are widely used as site trees. An advantage of using these trees as site trees is that the average height of dominant and co-dominant trees can be interpreted easily from medium or large-scale aerial photography. However, the definition of "dominant" and "co-dominant" is somewhat subjective, and different people may have different opinions on which tree is dominant and which tree is co-dominant. This can result in considerable discrepancies in the selection of site trees, causing inconsistent and unrepeatable site index estimates. Nicholas et al. (1991) examined the variation in the classification of tree crown positions and found that "the overall similarity of reclassification was only 72.1%", and "human classification errors may contribute to variation in site index estimates". For these reasons, GYPSY focuses on the use of top height as the site index measure.

The most important reason that GYPSY focuses on top height rather than stand height is that the selection of top height trees (largest DBH trees) per unit area is objective, consistent and repeatable. The repeatability is desirable in applications because it removes the subjectiveness associated with "dominant" and "co-dominant" trees. However, because stand height (dominant and co-dominant height) is still widely used in Alberta, especially in photo-based forest inventories, both top height and stand height are used in GYPSY. Users can choose either one or both of them depending on the specific circumstance involved. A relationship between stand height and top height was developed (see Section 3.4). It can be used to make conversions between stand height and top height.

There are three base models in GYPSY: the top height-site index model, the mortality model, and the Weibull diameter distribution function. The three base models constitute the foundation from which all GYPSY projections are made. The top height–site index model describes the growth of top height. It also functions as a site index prediction model, and can be used to make site-specific conversions among the three types of age (breast height age, stump age and total age). The mortality model describes the stand density dynamics. It provides site-specific stand density estimates at any point in time, including those at breast height age 50 (stand density factor) and breast height age zero (initial density).

The Weibull diameter distribution function describes the diameter distribution of a given stand with known values of site index, stand density and age. It was estimated using a one-step parameter prediction approach, on the combined cumulative distribution data from all sample plots. The conventional two-step parameter recovery procedure of fitting separate Weibull distribution to the diameter-class frequency data from each individual plot, and then regressing the estimated parameters to other plot-level variables such as site index, stand density and stand age (Clutter et al. 1983), was found to be less efficient than the one-step parameter prediction approach.

In GYPSY, the Weibull diameter distribution function was partitioned into an individual tree model. The partitioning process involves the use of the "inverse-distribution" technique (Huang 2001), a concept

derived from the inverse-regression approach (Draper and Smith 1998). Essentially, GYPSY partitions the estimated Weibull diameter distribution function into various narrow diameter classes of unequal intervals, such that there is only one tree appearing in each class. Integration of the partitioned classes at different levels of resolution produces compatible growth and yield estimations at whole stand, diameter class, and individual tree levels.

There are many factors that can influence the growth and yield of natural and regenerated stands. For pure lodgepole pine stands, the most common and important factors are site quality, stand density and age (most of the other factors are directly or indirectly related to these three factors). Site quality describes the carrying capacity of the environment. It is determined by the bio-geo-climatic conditions of a site. Stand density describes the degree of occupancy (or crowding) of a site. It is determined by both the number and the size of trees growing on the site. Because the models developed in GYPSY included site quality, stand density and age as independent variables, and because there is no irrefutable evidence to suggest that the site quality and stand density relationships between seed-origin natural and seed-origin regenerated pine stands are intrinsically different, so long as the values of site quality, stand density and age are known and the models behave appropriately within a wide range of site and stand density conditions, growth and yield projections can be made. This explains why GYPSY is applicable to both seed-origin natural and seed-origin regenerated lodgepole pine stands.

It is not well understood at this time how accurate the absolute prediction of yield made by GYPSY may be on the forest level. Since the models were developed and calibrated primarily with data from PSPs located in stands free from major disturbance, it is possible that the average forest level responses are not adequately represented by the models. In stands free from irregular mortality caused by forest fire, insect and disease, and severe weather such as wind, drought and ice storms, GYPSY should, however, provide relatively accurate predictions. If observations of irregular mortality are available, adjustments of the yield estimation can be made following the procedures described in Huang (2001).

A SAS based computer program is written to assist the computations associated with this version of GYPSY. The program is mainly designed to provide growth and yield estimation for seed-origin natural and regenerated lodgepole pine stands under various site, density and age consitions. It can also be used to show the estimated results in graphical and tabular forms. In order to run this program, either one of two sets of input variables can be used:

(I). Initial density and site index;
(II). Current observed density, top height and age (breast height age, stump age, or total age).

The yield relationships shown in Appendix 1 were generated from this program, based on the first set of input variables. Because the second set of input variables can be readily converted into the first set of input variables through the top height–site index model and the mortality model, the yield relationships shown in Appendix 1 can also be used when the second set of input variables are obtained from existing stands. If an exact match between the site and density values shown in Appendix 1 and their counterparts obtained from an existing stand is not available, approximations of the growth and yield projections can be made through linear interpolation.

In addition to the SAS based computer program, a yield table generator called ExcelGYPSY was developed to facilitate the application of GYPSY. ExcelGYPSY works in a Microsoft Excel environment. It is based on the Microsoft visual basic programming system, and is not restricted to the Microsoft Windows operating system. A user's guide for ExcelGYPSY is planned to be released at a later date. For the time being, ExcelGYPSY is available only to authorized individuals and organizations. It is expected that once the other GYPSY modules are completed, ExcelGYPSY will be made more widely available.

The primary objective of this report is to present the yield relationships in tabular form, such that users can access and evaluate the growth and yield of seed-origin natural and regenerated lodgepole pine stands promptly without the need of going into the details. A number of the models used to generate the yield relationships shown in Appendix 1 are presented here. Other models and the fundamentals that form the basis of GYPSY, together with some of the more technical aspects related to GYPSY, are described in Huang (2001).

2.0 The Base Models

The base models used to generate the yield curves shown in Appendix 1 include the top height–site index model, the mortality model, and the Weibull diameter distribution function.

2.1 The Top Height–Site Index Model and Site Index Prediction Tables

Two congruent versions of the top height-site index model were used in GYPSY. One is based on total age (totage), and the other is based on breast height age (bhage). The two versions are described by the same functional form. They provide compatible and mutually interchangeable top height and site index estimates from totage or bhage.

The top height-site index model based on total age

Evaluation of alternative height-site index models suggested that the following model, derived from the difference equation approach (Huang 1997), was appropriate for lodgepole pine in Alberta:

$$[1] \quad H_{TOP} = SI_{totage} \times \left(\frac{1 + \exp(b_1 + b_2\sqrt{\ln(1+50)} + b_3[\ln(SI_{totage})]^2 + b_4\sqrt{50})}{1 + \exp(b_1 + b_2\sqrt{\ln(1+totage)} + b_3[\ln(SI_{totage})]^2 + b_4\sqrt{50})} \right)$$

where: H_{TOP} = top height (m), which is defined as the average height of the 100 largest DBH trees per ha; SI_{totage} = total age based site index (m), which is defined as the top height at 50 years total age; totage = total age of the stand (years); exp = exponent; ln = natural logarithm; b_1 = 10.967495; b_2 = -5.417569; b_3 = -0.167170; and b_4 = 0.158292. Figure 1 shows the site index curves generated from [1].

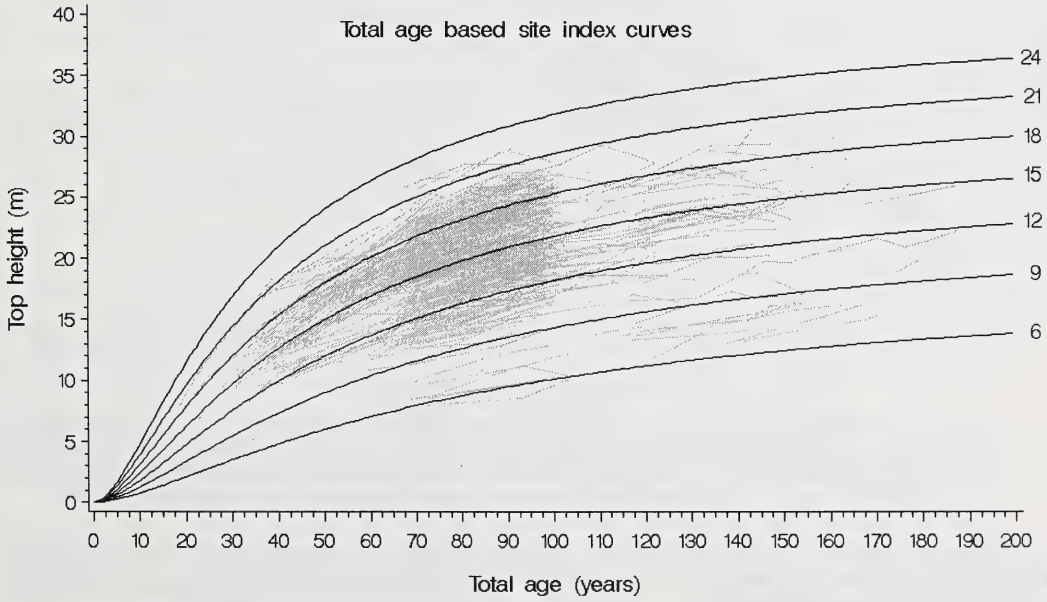


Figure 1. Lodgepole pine site index curves based on total age. The curves were generated from equation [1] using site index (SI_{totage}) values of 6, 9, 12, 15, 18, 21 and 24 m. Site index in this graph refers to top height at 50 years total age. The observed top height–total age trajectories from PSPs are also shown in this graph.

The top height-site index model based on breast height age

Total age based site index SI_{totage} was used in equation [1]. Traditionally, breast height age based site index (SI_{bhage} or simply SI), defined as the top height at 50 years bhage, is more commonly used in

Alberta and some other jurisdictions. In order to see how [1] can be re-written as a bhage based site index model, [1] is expressed as [2] for the specific height-age pair of H_{TOP} = 1.3 (m) and totage = Y2BH (years), where Y2BH is the years needed to reach the breast height of 1.3 m above ground:

$$[2] \quad 1.3 = SI_{totage} \times \left(\frac{1 + \exp(b_1 + b_2\sqrt{\ln(1+50)} + b_3[\ln(SI_{totage})]^2 + b_4\sqrt{50})}{1 + \exp(b_1 + b_2\sqrt{\ln(1+Y2BH)} + b_3[\ln(SI_{totage})]^2 + b_4\sqrt{50})} \right)$$

Since totage = (Y2BH + bhage), when bhage = 50, totage = (Y2BH + 50) and H_{TOP} = SI_{bhage}. Substituting the height-age pair of H_{TOP} = SI_{bhage} and totage = (Y2BH + 50) into [1] produces:

$$[3] \quad SI_{bhage} = SI_{totage} \times \left(\frac{1 + \exp(b_1 + b_2\sqrt{\ln(1+50)} + b_3[\ln(SI_{totage})]^2 + b_4\sqrt{50})}{1 + \exp(b_1 + b_2\sqrt{\ln(1+Y2BH+50)} + b_3[\ln(SI_{totage})]^2 + b_4\sqrt{50})} \right)$$

Based on the two-equation system of [2]–[3], if SI_{totage} is available, the two unknown variables SI_{bhage} and Y2BH can be solved numerically; if SI_{bhage} is available, the two unknown variables SI_{totage} and Y2BH can be solved numerically. Therefore, given the SI_{bhage} values, equation [1] can be used to generate bhage based site index curves, which are shown in Figure 2.

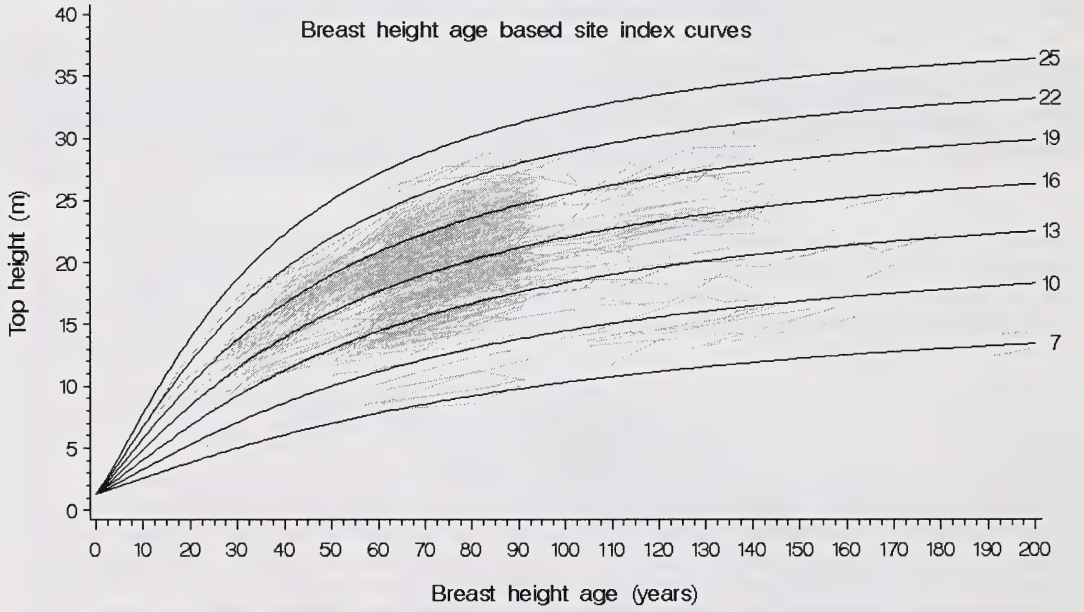


Figure 2. Lodgepole pine site index curves based on breast height age. The curves were generated from [1], based on the two-equation system of [2]-[3] and site index (SI_{bhage}) values of 7, 10, 13, 16, 19, 22 and 25 m. Site index in this graph refers to top height at 50 years bhage. The observed top height–bhage trajectories from PSPs are also shown in this graph. Each trajectory represents repeated measurements for one PSP.

Because SI_{bhage} is more commonly used in Alberta, unless a more specific term such as "total age based site index" is used, subsequent graphs and tables are all generated based on SI_{bhage}. For simplicity, SI_{bhage} is frequently referred to as SI.

Lodgepole pine height growth and site index prediction tables

Three site index prediction tables are shown here. They are based on totage (Table 1), stump age (Table 2) and bhage (Table 3). All three tables predict the bhage based site index (SI) from observed top height and one of the three ages. In practice, top height and age can be obtained by averaging the heights and ages of three largest DBH trees in each 0.03-ha plot, or four largest DBH trees in each 0.04-ha plot.

Table 1. Lodgepole pine site index prediction table based on top height and **total age**.

Total age (years)	Site index (SI, m) at 50 years bhage																							
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	Top height (m)																						
5	0.11	0.15	0.19	0.24	0.29	0.34	0.40	0.46	0.53	0.59	0.66	0.74	0.82	0.90	0.98	1.07	1.16	1.26	1.36	1.46	1.57	1.68	1.80
6	0.14	0.20	0.26	0.32	0.39	0.46	0.54	0.62	0.71	0.80	0.89	0.99	1.10	1.21	1.32	1.44	1.56	1.69	1.82	1.96	2.10	2.25	2.40
7	0.18	0.26	0.33	0.42	0.50	0.60	0.69	0.80	0.91	1.02	1.14	1.27	1.40	1.54	1.68	1.83	1.99	2.15	2.32	2.49	2.67	2.86	3.05
8	0.23	0.32	0.41	0.51	0.62	0.74	0.86	0.99	1.12	1.26	1.41	1.56	1.73	1.89	2.07	2.25	2.44	2.64	2.84	3.05	3.27	3.50	3.73
9	0.28	0.38	0.50	0.62	0.75	0.89	1.03	1.18	1.34	1.51	1.69	1.87	2.06	2.26	2.47	2.69	2.91	3.14	3.38	3.63	3.89	4.15	4.43
10	0.32	0.45	0.58	0.73	0.88	1.04	1.21	1.39	1.58	1.77	1.98	2.19	2.41	2.65	2.89	3.14	3.39	3.66	3.94	4.23	4.52	4.83	5.14
11	0.38	0.52	0.67	0.84	1.02	1.20	1.40	1.60	1.81	2.04	2.27	2.52	2.77	3.04	3.31	3.59	3.89	4.19	4.51	4.83	5.16	5.51	5.86
12	0.43	0.59	0.77	0.96	1.16	1.36	1.59	1.82	2.06	2.31	2.58	2.85	3.14	3.43	3.74	4.06	4.39	4.73	5.08	5.44	5.81	6.19	6.58
13	0.48	0.67	0.87	1.08	1.30	1.53	1.78	2.04	2.31	2.59	2.88	3.19	3.51	3.83	4.17	4.53	4.89	5.26	5.65	6.05	6.45	6.87	7.30
14	0.54	0.74	0.96	1.20	1.44	1.70	1.98	2.26	2.56	2.87	3.20	3.53	3.88	4.24	4.61	5.00	5.39	5.80	6.22	6.65	7.10	7.55	8.02
15	0.60	0.82	1.06	1.32	1.59	1.88	2.18	2.49	2.82	3.16	3.51	3.87	4.25	4.64	5.05	5.46	5.89	6.34	6.79	7.26	7.73	8.22	8.73
16	0.65	0.90	1.17	1.45	1.74	2.05	2.38	2.72	3.07	3.44	3.82	4.22	4.63	5.05	5.48	5.93	6.39	6.87	7.35	7.85	8.36	8.89	9.42
17	0.71	0.98	1.27	1.57	1.89	2.23	2.58	2.95	3.33	3.73	4.14	4.56	5.00	5.45	5.92	6.40	6.89	7.39	7.91	8.44	8.99	9.54	10.11
18	0.77	1.06	1.37	1.70	2.05	2.41	2.79	3.18	3.59	4.01	4.45	4.90	5.37	5.85	6.35	6.86	7.38	7.91	8.46	9.02	9.60	10.18	10.78
19	0.83	1.15	1.48	1.83	2.20	2.59	2.99	3.41	3.85	4.30	4.76	5.24	5.74	6.25	6.77	7.31	7.86	8.43	9.00	9.59	10.20	10.81	11.44
20	0.89	1.23	1.58	1.96	2.36	2.77	3.20	3.64	4.10	4.58	5.07	5.58	6.11	6.64	7.19	7.76	8.34	8.93	9.54	10.15	10.78	11.43	12.08
21	0.95	1.31	1.69	2.09	2.51	2.95	3.40	3.87	4.36	4.86	5.38	5.92	6.47	7.03	7.61	8.20	8.81	9.43	10.06	10.70	11.36	12.03	12.71
22	1.02	1.39	1.80	2.22	2.66	3.12	3.60	4.10	4.61	5.14	5.69	6.25	6.83	7.42	8.02	8.64	9.27	9.91	10.57	11.24	11.92	12.62	13.32
23	1.08	1.48	1.90	2.35	2.82	3.30	3.81	4.33	4.87	5.42	5.99	6.58	7.18	7.79	8.42	9.07	9.72	10.39	11.07	11.77	12.47	13.19	13.92
24	1.14	1.56	2.01	2.48	2.97	3.48	4.01	4.55	5.12	5.70	6.29	6.90	7.53	8.17	8.82	9.49	10.17	10.86	11.56	12.28	13.01	13.75	14.50
25	1.20	1.65	2.12	2.61	3.12	3.66	4.21	4.78	5.37	5.97	6.59	7.22	7.87	8.53	9.21	9.90	10.60	11.32	12.04	12.78	13.53	14.29	15.06
26	1.26	1.73	2.22	2.74	3.28	3.83	4.41	5.00	5.61	6.24	6.88	7.54	8.21	8.89	9.59	10.31	11.03	11.77	12.51	13.27	14.04	14.82	15.61
27	1.32	1.81	2.33	2.87	3.43	4.01	4.61	5.22	5.86	6.50	7.17	7.85	8.54	9.25	9.97	10.70	11.45	12.20	12.97	13.75	14.54	15.34	16.15
28	1.39	1.90	2.44	3.00	3.58	4.18	4.80	5.44	6.10	6.77	7.45	8.15	8.87	9.60	10.34	11.09	11.86	12.63	13.42	14.22	15.02	15.84	16.67
29	1.45	1.98	2.54	3.12	3.73	4.35	5.00	5.66	6.33	7.03	7.73	8.46	9.19	9.94	10.70	11.47	12.26	13.05	13.85	14.67	15.49	16.33	17.17
30	1.51	2.06	2.65	3.25	3.88	4.52	5.19	5.87	6.57	7.28	8.01	8.75	9.51	10.27	11.05	11.84	12.65	13.46	14.28	15.11	15.95	16.80	17.66
35	1.82	2.48	3.16	3.87	4.60	5.35	6.12	6.90	7.70	8.50	9.33	10.16	11.00	11.85	12.72	13.59	14.47	15.36	16.25	17.15	18.06	18.98	19.90
40	2.12	2.88	3.66	4.47	5.30	6.14	6.99	7.86	8.74	9.63	10.53	11.44	12.36	13.28	14.21	15.14	16.09	17.03	17.98	18.94	19.90	20.86	21.83
45	2.41	3.26	4.14	5.04	5.95	6.88	7.81	8.76	9.71	10.67	11.64	12.61	13.58	14.56	15.54	16.53	17.52	18.51	19.51	20.50	21.50	22.50	23.50
50	2.69	3.63	4.60	5.58	6.57	7.57	8.57	9.58	10.60	11.62	12.64	13.66	14.69	15.71	16.74	17.77	18.79	19.82	20.85	21.87	22.90	23.92	24.95
55	2.96	3.99	5.03	6.08	7.15	8.21	9.28	10.35	11.42	12.49	13.56	14.62	15.69	16.75	17.81	18.87	19.92	20.98	22.03	23.08	24.13	25.17	26.22
60	3.22	4.32	5.44	6.56	7.69	8.81	9.94	11.06	12.17	13.29	14.39	15.50	16.59	17.69	18.77	19.86	20.94	22.01	23.08	24.15	25.21	26.27	27.33
65	3.47	4.64	5.83	7.02	8.20	9.38	10.55	11.71	12.87	14.02	15.16	16.29	17.41	18.53	19.64	20.74	21.84	22.93	24.02	25.10	26.17	27.24	28.31
70	3.70	4.95	6.20	7.44	8.68	9.90	11.12	12.32	13.51	14.69	15.86	17.01	18.16	19.30	20.42	21.54	22.65	23.76	24.85	25.94	27.03	28.10	29.18
75	3.93	5.24	6.55	7.84	9.12	10.39	11.64	12.88	14.10	15.31	16.50	17.67	18.84	19.99	21.13	22.27	23.39	24.50	25.61	26.70	27.79	28.87	29.95
80	4.15	5.51	6.87	8.22	9.54	10.85	12.13	13.40	14.65	15.87	17.09	18.28	19.46	20.63	21.78	22.92	24.05	25.17	26.28	27.39	28.48	29.57	30.64
85	4.35	5.78	7.19	8.57	9.94	11.28	12.59	13.88	15.15	16.40	17.63	18.84	20.03	21.21	22.37	23.52	24.66	25.78	26.90	28.00	29.10	30.19	31.27
90	4.55	6.03	7.48	8.91	10.31	11.68	13.02	14.33	15.62	16.89	18.13	19.35	20.55	21.74	22.91	24.07	25.21	26.34	27.46	28.56	29.66	30.75	31.83
95	4.74	6.26	7.76	9.23	10.66	12.05	13.42	14.75	16.06	17.34	18.59	19.82	21.04	22.23	23.40	24.57	25.71	26.84	27.96	29.07	30.17	31.26	32.34
100	4.92	6.49	8.03	9.53	10.99	12.41	13.79	15.14	16.46	17.75	19.02	20.26	21.48	22.68	23.86	25.02	26.17	27.31	28.43	29.54	30.64	31.73	32.81
105	5.09	6.70	8.28	9.81	11.29	12.74	14.14	15.51	16.84	18.14	19.42	20.67	21.89	23.10	24.28	25.45	26.60	27.73	28.86	29.97	31.07	32.16	33.24
110	5.25	6.91	8.52	10.08	11.59	13.05	14.47	15.85	17.20	18.51	19.79	21.04	22.27	23.48	24.67	25.84	26.99	28.13	29.25	30.36	31.46	32.55	33.63
115	5.41	7.10	8.74	10.33	11.86	13.34	14.78	16.17	17.53	18.85	20.13	21.39	22.63	23.84	25.03	26.20	27.35	28.49	29.61	30.72	31.82	32.91	33.99
120	5.56	7.29	8.96	10.57	12.12	13.62	15.07	16.47	17.84	19.16	20.46	21.72	22.96	24.17	25.36	26.53	27.69	28.82	29.95	31.06	32.15	33.24	34.32
125	5.70	7.46	9.16	10.80	12.37	13.88	15.34	16.76	18.13	19.46	20.76	22.03	23.27	24.48	25.67	26.85	28.00	29.14	30.26	31.37	32.46	33.55	34.62
130	5.84	7.63	9.36	11.01	12.60	14.13	15.60	17.02	18.40	19.74	21.04	22.31	23.56	24.77	25.97	27.14	28.29	29.43	30.55	31.66	32.75	33.83	34.91
135	5.97	7.79	9.54	11.22	12.82	14.36	15.85	17.28	18.66	20.00	21.31	22.58	23.83	25.04	26.24	27.41	28.56	29.70	30.82	31.92	33.02	34.10	35.17
140	6.09	7.95	9.72	11.41	13.03	14.59	16.08	17.51	18.90	20.25	21.56	22.84	24.08	25.30	26.49	27.66	28.82	29.95	31.07	32.17	33.27	34.35	35.42
145	6.21	8.10	9.89	11.60	13.23	14.80	16.30	17.74	19.13	20.48	21.80	23.07	24.32	25.54	26.73	27.90	29.05	30.19	31.30	32.41	33.50	34.58	35.64
150	6.33	8.24	10.05	11.78	13.42	15.00	16.50	17.95	19.35	20.71	22.02	23.30	24.54	25.76	26.95	28.13	29.28	30.41	31.53	32.63	33.72	34.79	35.86
155	6.44	8.37	10.21	11.95	13.60	15.19	16.70	18.16	19.56	20.91	22.23	23.51	24.76	25.97	27.17	28.34	29.49	30.62	31.73	32.83	33.92	35.00	36.06
160	6.55	8.50	10.35	12.11	13.78	15.37	16.89	18.35	19.75	21.11	22.43	23.71	24.96	26.17	27.37	28.53	29.68	30.81	31.93	33.03	34.11	35.19	36.25
165	6.65	8.63	10.50	12.26	13.94	15.54	17.07	18.53	19.94	21.30	22.62	23.90	25.14	26.36	27.55	28.72	29.87	31.00	32.11	33.21	34.29	35.37	36.43
170	6.75	8.75	10.63	12.41	14.10	15.70	17.24	18.70	20.11	21.48	22.80	24.08	25.32	26.54	27.73	28.90	30.05	31.17	32.28	33.38	34.46	35.53	36.59
175	6.84	8.86	10.76	12.55	14.25	15.86	17.40	18.87	20.28	21.65	22.96	24.25	25.49	26.71	27.90	29.07	30.21	31.34	32.45	33.54	34.62	35.69	36.75
180	6.93	8.97	10.89	12.69	14.39	16.01	17.55	19.02	20.44	21.81	23.13	24.41	25.65	26.87	28.06	29.23	30.37	31.50	32.60	33.70	34.78	35.84	36.90
185	7.02	9.08	11.01	12.82	14.53	16.15	17.70	19.18	20.59	21.96	23.28	24.56	25.81	27.02	28.21	29.38	30.52	31.64	32.75	33.84	34.92	35.99	37.04
190	7.11	9.18	11.12	12.94	14.66	16.29	17.84	19.32	20.74	22.10	23.43	24.71	25.95	27.17	28.36	29.52	30.66	31.78	32.89	33.98	35.06	36.12	37.18
195	7.19	9.28	11.23	13.06	14.79	16.42	17.97	19.46	20.88	22.24	23.57	24.85	26.09	27.31	28.49	29.66	30.80	31.92	33.02	34.11	35.19	36.25	37.30
200	7.27	9.37	11.34	13.18	14.91	16.55	18.10	19.59	21.01	22.38	23.70	24.98	26.22	27.44	28.62	29.79	30.92	32.04	33.15	34.24	35.31	36.37	37.42
Y2BH	27	21	17	15	13	12	10	10	9	8	8	7	7	6	6	6	5	5	5	5	4	4	4

Site class	SI ranges (m)	Average SI value (m)	Definition	Timber productivity rating (TPR)
1	0 < SI ≤ 7	6	Unproductive	U
2	7 < SI ≤ 12	10	Fair/poor	F
3	12< SI ≤ 16	14	Medium	M
4	16 < SI ≤ 20	18	Good	G
5	SI > 20	22	Superior	S

Note: top height is the average height of the 100 largest DBH trees per ha, SI is site index, defined as the top height at 50 years breast height age (bhage), totage is the total age of the stand (years), and Y2BH is the years needed to reach the breast height of 1.3 m above ground. In practice, top height and totage can be obtained by averaging the heights and ages of three largest DBH trees in each 0.03-ha plot, or four largest DBH trees in each 0.04-ha plot.

Table 2. Lodgepole pine site index prediction table based on top height and **stump age**.

Stump age (years)	Site index (SI, m) at 50 years bhage																						
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	Top height (m)																						
5	0.57	0.65	0.73	0.81	0.89	0.98	1.07	1.16	1.25	1.34	1.44	1.54	1.65	1.75	1.86	1.98	2.09	2.21	2.34	2.47	2.60	2.73	2.87
6	0.62	0.72	0.82	0.92	1.03	1.14	1.25	1.36	1.48	1.60	1.72	1.85	1.98	2.12	2.26	2.40	2.55	2.70	2.86	3.02	3.19	3.36	3.54
7	0.68	0.80	0.92	1.04	1.17	1.30	1.43	1.57	1.71	1.86	2.01	2.17	2.33	2.49	2.67	2.84	3.02	3.21	3.41	3.60	3.81	4.02	4.23
8	0.74	0.88	1.02	1.16	1.31	1.47	1.62	1.79	1.95	2.13	2.31	2.49	2.68	2.88	3.09	3.30	3.51	3.73	3.96	4.20	4.44	4.69	4.94
9	0.80	0.96	1.12	1.29	1.46	1.64	1.82	2.01	2.20	2.40	2.61	2.83	3.05	3.28	3.51	3.76	4.01	4.26	4.53	4.80	5.08	5.37	5.66
10	0.86	1.04	1.22	1.41	1.61	1.81	2.02	2.23	2.45	2.68	2.92	3.16	3.42	3.68	3.95	4.22	4.51	4.80	5.10	5.41	5.72	6.05	6.38
11	0.92	1.12	1.33	1.54	1.76	1.98	2.22	2.46	2.71	2.97	3.23	3.51	3.79	4.08	4.38	4.69	5.01	5.34	5.67	6.02	6.37	6.73	7.11
12	0.98	1.21	1.43	1.67	1.91	2.16	2.42	2.69	2.96	3.25	3.54	3.85	4.16	4.49	4.82	5.16	5.51	5.87	6.24	6.62	7.01	7.41	7.82
13	1.05	1.29	1.54	1.80	2.06	2.34	2.62	2.92	3.22	3.54	3.86	4.19	4.54	4.89	5.25	5.63	6.01	6.41	6.81	7.23	7.65	8.09	8.53
14	1.11	1.37	1.64	1.93	2.22	2.52	2.83	3.15	3.48	3.82	4.17	4.54	4.91	5.29	5.69	6.09	6.51	6.94	7.38	7.82	8.28	8.75	9.23
15	1.17	1.46	1.75	2.06	2.37	2.70	3.03	3.38	3.74	4.11	4.49	4.88	5.28	5.70	6.12	6.56	7.00	7.46	7.93	8.41	8.91	9.41	9.92
16	1.23	1.54	1.86	2.19	2.52	2.87	3.24	3.61	3.99	4.39	4.80	5.22	5.65	6.09	6.55	7.02	7.49	7.98	8.48	9.00	9.52	10.05	10.60
17	1.29	1.62	1.96	2.32	2.68	3.05	3.44	3.84	4.25	4.67	5.11	5.56	6.02	6.49	6.97	7.47	7.98	8.49	9.02	9.57	10.12	10.68	11.26
18	1.36	1.71	2.07	2.45	2.83	3.23	3.64	4.07	4.51	4.96	5.42	5.89	6.38	6.88	7.39	7.92	8.45	9.00	9.56	10.13	10.71	11.30	11.91
19	1.42	1.79	2.18	2.58	2.99	3.41	3.85	4.30	4.76	5.24	5.72	6.23	6.74	7.27	7.80	8.36	8.92	9.49	10.08	10.68	11.29	11.91	12.54
20	1.48	1.88	2.28	2.70	3.14	3.59	4.05	4.52	5.01	5.51	6.03	6.55	7.09	7.65	8.21	8.79	9.38	9.98	10.59	11.22	11.85	12.50	13.16
21	1.54	1.96	2.39	2.83	3.29	3.76	4.25	4.75	5.26	5.79	6.33	6.88	7.44	8.02	8.61	9.21	9.83	10.46	11.09	11.74	12.40	13.07	13.76
22	1.60	2.04	2.50	2.96	3.44	3.94	4.45	4.97	5.51	6.06	6.62	7.20	7.79	8.39	9.01	9.63	10.27	10.92	11.58	12.26	12.94	13.64	14.34
23	1.66	2.13	2.60	3.09	3.59	4.11	4.65	5.19	5.75	6.33	6.91	7.51	8.13	8.75	9.39	10.04	10.70	11.38	12.06	12.76	13.47	14.18	14.91
24	1.73	2.21	2.71	3.22	3.74	4.29	4.84	5.41	5.99	6.59	7.20	7.83	8.46	9.11	9.77	10.44	11.13	11.83	12.53	13.25	13.98	14.72	15.46
25	1.79	2.29	2.81	3.34	3.89	4.46	5.03	5.63	6.23	6.85	7.49	8.13	8.79	9.46	10.14	10.84	11.54	12.26	12.99	13.73	14.48	15.23	16.00
26	1.85	2.37	2.91	3.47	4.04	4.63	5.23	5.84	6.47	7.11	7.77	8.43	9.11	9.81	10.51	11.23	11.95	12.69	13.44	14.19	14.96	15.74	16.53
27	1.91	2.45	3.02	3.59	4.19	4.79	5.42	6.05	6.70	7.37	8.04	8.73	9.43	10.14	10.87	11.60	12.35	13.11	13.87	14.65	15.43	16.23	17.03
28	1.97	2.54	3.12	3.72	4.33	4.96	5.60	6.26	6.93	7.62	8.31	9.02	9.74	10.48	11.22	11.97	12.74	13.51	14.30	15.09	15.89	16.71	17.53
29	2.03	2.62	3.22	3.84	4.48	5.13	5.79	6.47	7.16	7.86	8.58	9.31	10.05	10.80	11.56	12.33	13.12	13.91	14.71	15.52	16.34	17.17	18.00
30	2.09	2.70	3.32	3.96	4.62	5.29	5.97	6.67	7.38	8.11	8.84	9.59	10.35	11.12	11.90	12.69	13.49	14.30	15.12	15.94	16.78	17.62	18.47
35	2.38	3.09	3.81	4.55	5.31	6.08	6.86	7.65	8.45	9.27	10.09	10.92	11.77	12.62	13.48	14.34	15.22	16.10	16.99	17.88	18.78	19.69	20.60
40	2.66	3.47	4.28	5.12	5.96	6.82	7.68	8.56	9.44	10.33	11.23	12.14	13.05	13.97	14.89	15.82	16.75	17.69	18.63	19.57	20.52	21.48	22.43
45	2.93	3.83	4.73	5.65	6.58	7.51	8.45	9.40	10.35	11.31	12.27	13.24	14.21	15.18	16.15	17.13	18.11	19.09	20.07	21.06	22.04	23.03	24.02
50	3.19	4.17	5.16	6.16	7.16	8.16	9.17	10.18	11.19	12.21	13.22	14.24	15.25	16.27	17.28	18.30	19.32	20.33	21.35	22.36	23.38	24.39	25.41
55	3.44	4.50	5.56	6.63	7.70	8.77	9.84	10.90	11.97	13.03	14.09	15.14	16.20	17.25	18.30	19.35	20.39	21.43	22.47	23.51	24.55	25.58	26.62
60	3.68	4.81	5.95	7.08	8.21	9.33	10.45	11.57	12.68	13.78	14.88	15.97	17.06	18.14	19.21	20.29	21.35	22.42	23.48	24.53	25.58	26.63	27.68
65	3.91	5.11	6.31	7.50	8.69	9.86	11.03	12.18	13.33	14.47	15.60	16.72	17.83	18.94	20.04	21.13	22.22	23.30	24.37	25.44	26.50	27.56	28.62
70	4.12	5.39	6.65	7.90	9.13	10.35	11.56	12.76	13.94	15.10	16.26	17.41	18.54	19.67	20.78	21.89	22.99	24.08	25.17	26.25	27.32	28.39	29.45
75	4.33	5.66	6.97	8.27	9.55	10.81	12.06	13.28	14.49	15.69	16.87	18.04	19.19	20.33	21.46	22.58	23.69	24.80	25.89	26.98	28.06	29.13	30.20
80	4.53	5.91	7.28	8.62	9.95	11.24	12.52	13.78	15.01	16.23	17.43	18.61	19.78	20.94	22.08	23.21	24.33	25.44	26.54	27.63	28.72	29.80	30.87
85	4.72	6.16	7.57	8.96	10.32	11.65	12.95	14.23	15.49	16.73	17.94	19.14	20.32	21.49	22.64	23.78	24.91	26.03	27.13	28.23	29.32	30.40	31.47
90	4.90	6.39	7.85	9.27	10.66	12.03	13.36	14.66	15.94	17.19	18.42	19.63	20.82	22.00	23.16	24.31	25.44	26.56	27.67	28.77	29.86	30.94	32.01
95	5.07	6.61	8.11	9.57	10.99	12.38	13.73	15.06	16.35	17.62	18.86	20.08	21.28	22.47	23.63	24.79	25.92	27.05	28.16	29.26	30.35	31.44	32.51
100	5.23	6.81	8.35	9.85	11.30	12.71	14.09	15.43	16.74	18.02	19.27	20.50	21.71	22.90	24.07	25.23	26.37	27.49	28.61	29.71	30.80	31.89	32.96
105	5.39	7.01	8.59	10.11	11.59	13.03	14.42	15.78	17.10	18.39	19.65	20.89	22.11	23.30	24.48	25.63	26.78	27.91	29.02	30.12	31.22	32.30	33.37
110	5.54	7.20	8.81	10.36	11.87	13.32	14.73	16.10	17.43	18.74	20.01	21.25	22.47	23.67	24.85	26.01	27.16	28.28	29.40	30.50	31.60	32.68	33.75
115	5.68	7.38	9.02	10.60	12.13	13.60	15.02	16.41	17.75	19.06	20.34	21.59	22.81	24.02	25.20	26.36	27.51	28.64	29.75	30.86	31.95	33.03	34.10
120	5.82	7.56	9.22	10.83	12.37	13.86	15.30	16.69	18.05	19.36	20.65	21.90	23.13	24.34	25.52	26.68	27.83	28.96	30.08	31.18	32.27	33.35	34.42
125	5.95	7.72	9.42	11.04	12.61	14.11	15.56	16.97	18.33	19.65	20.94	22.20	23.43	24.64	25.82	26.99	28.13	29.26	30.38	31.48	32.57	33.65	34.72
130	6.08	7.88	9.60	11.25	12.83	14.35	15.81	17.22	18.59	19.92	21.21	22.47	23.71	24.92	26.10	27.27	28.41	29.54	30.66	31.76	32.85	33.93	35.00
135	6.20	8.03	9.77	11.44	13.04	14.57	16.04	17.46	18.84	20.17	21.47	22.73	23.97	25.18	26.36	27.53	28.68	29.81	30.92	32.02	33.11	34.19	35.26
140	6.32	8.17	9.94	11.63	13.24	14.78	16.26	17.69	19.07	20.41	21.71	22.98	24.21	25.42	26.61	27.78	28.92	30.05	31.17	32.27	33.35	34.43	35.50
145	6.43	8.31	10.10	11.80	13.43	14.98	16.47	17.91	19.29	20.63	21.94	23.21	24.44	25.66	26.84	28.01	29.15	30.28	31.40	32.50	33.58	34.66	35.72
150	6.54	8.44	10.25	11.97	13.61	15.17	16.67	18.11	19.50	20.85	22.15	23.42	24.66	25.87	27.06	28.23	29.37	30.50	31.61	32.71	33.79	34.87	35.93
155	6.64	8.57	10.40	12.13	13.78	15.35	16.86	18.30	19.70	21.05	22.35	23.63	24.87	26.08	27.27	28.43	29.58	30.70	31.81	32.91	33.99	35.07	36.13
160	6.74	8.69	10.54	12.29	13.95	15.53	17.04	18.49	19.89	21.24	22.55	23.82	25.06	26.27	27.46	28.62	29.77	30.89	32.00	33.10	34.18	35.25	36.31
165	6.83	8.81	10.67	12.43	14.10	15.69	17.21	18.66	20.06	21.42	22.73	24.00	25.24	26.46	27.64	28.81	29.95	31.07	32.18	33.28	34.36	35.43	36.49
170	6.93	8.92	10.80	12.57	14.25	15.85	17.37	18.83	20.23	21.59	22.90	24.18	25.42	26.63	27.82	28.98	30.12	31.25	32.35	33.45	34.52	35.59	36.65
175	7.01	9.03	10.92	12.71	14.40	16.00	17.53	18.99	20.40	21.75	23.07	24.34	25.58	26.79	27.98	29.14	30.28	31.41	32.51	33.60	34.68	35.75	36.80
180	7.10	9.13	11.04	12.84	14.53	16.14	17.68	19.14	20.55	21.91	23.22	24.50	25.74	26.95	28.14	29.30	30.44	31.56	32.66	33.75	34.83	35.90	36.95
185	7.18	9.23	11.16	12.96	14.67	16.28	17.82	19.29	20.70	22.06	23.37	24.65	25.89	27.10	28.28	29.44	30.58	31.70	32.81	33.90	34.97	36.04	37.09
190	7.26	9.33	11.26	13.08	14.79	16.41	17.95	19.42	20.84	22.20	23.51	24.79	26.03	27.24	28.42	29.58	30.72	31.84	32.94	34.03	35.11	36.17	37.22
195	7.34	9.42	11.37	13.20	14.91	16.54	18.08	19.56	20.97	22.33	23.65	24.93	26.17	27.38	28.56	29.72	30.85	31.97	33.07	34.16	35.23	36.29	37.34
200	7.41	9.51	11.47	13.31	15.03	16.66	18.21	19.68	21.10	22.46	23.78	25.05	26.29	27.50	28.69	29.84	30.98	32.10	33.20	34.28	35.35	36.41	37.46
Y2BH	27	21	17	15	13	12	10	10	9	8	8	7	7	6	6	6	5	5	5	5	4	4	4

Site class	SI ranges (m)	Average SI value (m)	Definition	Timber productivity rating (TPR)
1	0 < SI ≤ 7	6	Unproductive	U
2	7 < SI ≤ 12	10	Fair/poor	F
3	12< SI ≤ 16	14	Medium	M
4	16 < SI ≤ 20	18	Good	G
5	SI > 20	22	Superior	S

Note: top height is the average height of the 100 largest DBH trees per ha, SI is site index, defined as the top height at 50 years bhage, stump age is the age measured at the stump height of 0.3 m above ground, and Y2BH is the years needed to reach breast height (1.3 m). In practice, top height and stump age can be obtained by averaging the heights and ages of three largest DBH trees in each 0.03-ha plot, or four largest DBH trees in each 0.04-ha plot.

Table 3. Lodgepole pine site index prediction table based on top height and **breast height age**.

Bhage	Site index (SI, m) at 50 years bhage																						
(years)	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	Top height (m)																						
3	1.49	1.55	1.62	1.68	1.74	1.81	1.88	1.94	2.01	2.08	2.15	2.22	2.30	2.37	2.45	2.53	2.61	2.69	2.77	2.85	2.94	3.03	3.12
4	1.55	1.64	1.72	1.81	1.90	1.99	2.08	2.17	2.26	2.36	2.45	2.55	2.65	2.76	2.86	2.97	3.08	3.19	3.31	3.43	3.55	3.67	3.80
5	1.61	1.72	1.83	1.94	2.05	2.16	2.28	2.39	2.51	2.63	2.76	2.89	3.02	3.15	3.29	3.43	3.57	3.71	3.86	4.02	4.17	4.33	4.50
6	1.67	1.80	1.93	2.07	2.20	2.34	2.48	2.62	2.77	2.92	3.07	3.22	3.38	3.55	3.72	3.89	4.06	4.24	4.43	4.62	4.81	5.01	5.21
7	1.73	1.89	2.04	2.20	2.36	2.52	2.68	2.85	3.02	3.20	3.38	3.57	3.76	3.95	4.15	4.35	4.56	4.78	5.00	5.22	5.45	5.69	5.93
8	1.79	1.97	2.15	2.33	2.51	2.70	2.89	3.08	3.28	3.49	3.69	3.91	4.13	4.35	4.59	4.82	5.07	5.32	5.57	5.83	6.10	6.37	6.66
9	1.85	2.05	2.25	2.46	2.67	2.88	3.09	3.31	3.54	3.77	4.01	4.25	4.50	4.76	5.02	5.29	5.57	5.85	6.14	6.44	6.75	7.06	7.38
10	1.91	2.14	2.36	2.59	2.82	3.06	3.30	3.54	3.80	4.06	4.32	4.60	4.88	5.16	5.46	5.76	6.07	6.39	6.71	7.05	7.39	7.73	8.09
11	1.97	2.22	2.47	2.72	2.97	3.23	3.50	3.77	4.05	4.34	4.64	4.94	5.25	5.57	5.89	6.23	6.57	6.92	7.28	7.64	8.02	8.40	8.80
12	2.03	2.30	2.57	2.85	3.13	3.41	3.70	4.00	4.31	4.63	4.95	5.28	5.62	5.97	6.32	6.69	7.06	7.44	7.84	8.24	8.65	9.06	9.49
13	2.09	2.38	2.68	2.97	3.28	3.59	3.91	4.23	4.57	4.91	5.26	5.62	5.99	6.36	6.75	7.14	7.55	7.96	8.39	8.82	9.26	9.71	10.18
14	2.15	2.47	2.78	3.10	3.43	3.76	4.11	4.46	4.82	5.19	5.56	5.95	6.35	6.75	7.17	7.60	8.03	8.48	8.93	9.40	9.87	10.35	10.85
15	2.21	2.55	2.89	3.23	3.58	3.94	4.31	4.68	5.07	5.46	5.87	6.28	6.71	7.14	7.59	8.04	8.51	8.98	9.46	9.96	10.46	10.98	11.50
16	2.27	2.63	2.99	3.36	3.73	4.11	4.51	4.91	5.32	5.74	6.17	6.61	7.06	7.52	8.00	8.48	8.97	9.48	9.99	10.51	11.05	11.59	12.15
17	2.33	2.71	3.09	3.48	3.88	4.29	4.70	5.13	5.56	6.01	6.47	6.94	7.41	7.90	8.40	8.91	9.43	9.96	10.50	11.05	11.62	12.19	12.77
18	2.39	2.79	3.19	3.61	4.03	4.46	4.90	5.35	5.81	6.28	6.76	7.25	7.76	8.27	8.80	9.33	9.88	10.44	11.01	11.59	12.17	12.77	13.38
19	2.44	2.87	3.29	3.73	4.17	4.63	5.09	5.57	6.05	6.55	7.05	7.57	8.10	8.64	9.19	9.75	10.32	10.91	11.50	12.10	12.72	13.34	13.98
20	2.50	2.94	3.39	3.85	4.32	4.80	5.28	5.78	6.29	6.81	7.34	7.88	8.43	9.00	9.57	10.16	10.75	11.36	11.98	12.61	13.25	13.90	14.56
21	2.56	3.02	3.49	3.97	4.46	4.96	5.47	5.99	6.52	7.07	7.62	8.19	8.76	9.35	9.95	10.56	11.18	11.81	12.45	13.10	13.77	14.44	15.12
22	2.61	3.10	3.59	4.09	4.61	5.13	5.66	6.20	6.76	7.32	7.90	8.49	9.09	9.70	10.32	10.95	11.59	12.25	12.91	13.58	14.27	14.96	15.67
23	2.67	3.18	3.69	4.21	4.75	5.29	5.84	6.41	6.99	7.57	8.17	8.78	9.40	10.04	10.68	11.33	12.00	12.67	13.36	14.05	14.76	15.48	16.20
24	2.72	3.25	3.79	4.33	4.89	5.45	6.03	6.61	7.21	7.82	8.44	9.07	9.72	10.37	11.03	11.71	12.39	13.09	13.80	14.51	15.24	15.97	16.72
25	2.78	3.33	3.88	4.45	5.02	5.61	6.21	6.82	7.43	8.06	8.71	9.36	10.02	10.70	11.38	12.08	12.78	13.50	14.22	14.96	15.70	16.46	17.22
26	2.83	3.40	3.98	4.57	5.16	5.77	6.39	7.01	7.65	8.30	8.97	9.64	10.32	11.02	11.72	12.44	13.16	13.90	14.64	15.39	16.16	16.93	17.71
27	2.89	3.48	4.07	4.68	5.30	5.92	6.56	7.21	7.87	8.54	9.22	9.92	10.62	11.33	12.05	12.79	13.53	14.28	15.05	15.82	16.60	17.38	18.18
28	2.94	3.55	4.17	4.79	5.43	6.08	6.74	7.40	8.08	8.77	9.47	10.19	10.91	11.64	12.38	13.13	13.89	14.66	15.44	16.23	17.02	17.83	18.64
29	2.99	3.62	4.26	4.91	5.56	6.23	6.91	7.60	8.29	9.00	9.72	10.45	11.19	11.94	12.70	13.47	14.24	15.03	15.83	16.63	17.44	18.26	19.09
30	3.04	3.69	4.35	5.02	5.69	6.38	7.08	7.78	8.50	9.23	9.97	10.71	11.47	12.24	13.01	13.80	14.59	15.39	16.20	17.02	17.85	18.68	19.52
35	3.30	4.04	4.80	5.56	6.33	7.10	7.89	8.68	9.49	10.30	11.12	11.94	12.78	13.62	14.47	15.33	16.19	17.06	17.94	18.82	19.71	20.60	21.50
40	3.54	4.38	5.22	6.07	6.92	7.78	8.64	9.52	10.39	11.28	12.17	13.06	13.96	14.87	15.78	16.70	17.61	18.54	19.47	20.40	21.33	22.27	23.22
45	3.78	4.70	5.62	6.55	7.48	8.41	9.35	10.29	11.23	12.18	13.13	14.08	15.03	15.99	16.95	17.91	18.88	19.84	20.81	21.78	22.75	23.73	24.70
50	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00	19.00	20.00	21.00	22.00	23.00	24.00	25.00	26.00
55	4.21	5.29	6.36	7.43	8.49	9.55	10.61	11.66	12.71	13.75	14.80	15.84	16.88	17.91	18.94	19.97	21.00	22.03	23.05	24.08	25.10	26.12	27.14
60	4.42	5.56	6.70	7.83	8.95	10.06	11.17	12.27	13.36	14.45	15.53	16.60	17.67	18.73	19.79	20.85	21.90	22.95	23.99	25.03	26.07	27.11	28.14
65	4.61	5.82	7.02	8.21	9.38	10.54	11.69	12.83	13.96	15.08	16.19	17.30	18.39	19.48	20.56	21.64	22.71	23.77	24.83	25.89	26.94	27.98	29.03
70	4.79	6.07	7.32	8.56	9.78	10.99	12.18	13.36	14.52	15.67	16.81	17.94	19.05	20.16	21.26	22.35	23.44	24.52	25.59	26.65	27.71	28.77	29.82
75	4.97	6.30	7.61	8.90	10.16	11.41	12.64	13.84	15.03	16.21	17.37	18.52	19.66	20.78	21.90	23.00	24.10	25.19	26.27	27.34	28.41	29.47	30.52
80	5.14	6.53	7.88	9.22	10.52	11.80	13.06	14.30	15.51	16.71	17.89	19.06	20.21	21.35	22.48	23.59	24.70	25.79	26.88	27.96	29.04	30.10	31.16
85	5.30	6.74	8.14	9.52	10.86	12.17	13.46	14.72	15.96	17.17	18.37	19.55	20.72	21.87	23.01	24.13	25.24	26.35	27.44	28.53	29.60	30.67	31.73
90	5.45	6.94	8.39	9.80	11.17	12.52	13.83	15.11	16.37	17.60	18.82	20.01	21.19	22.35	23.49	24.63	25.75	26.85	27.95	29.04	30.12	31.19	32.26
95	5.60	7.13	8.62	10.07	11.47	12.84	14.17	15.48	16.75	18.00	19.23	20.44	21.62	22.79	23.94	25.08	26.20	27.32	28.42	29.51	30.59	31.66	32.73
100	5.74	7.32	8.84	10.32	11.75	13.15	14.50	15.82	17.11	18.38	19.61	20.83	22.02	23.20	24.36	25.50	26.63	27.74	28.85	29.94	31.02	32.10	33.16
105	5.88	7.49	9.05	10.56	12.02	13.43	14.81	16.15	17.45	18.72	19.97	21.19	22.39	23.58	24.74	25.88	27.02	28.13	29.24	30.33	31.42	32.49	33.56
110	6.01	7.66	9.25	10.79	12.27	13.71	15.10	16.45	17.77	19.05	20.31	21.53	22.74	23.93	25.09	26.24	27.38	28.50	29.60	30.70	31.78	32.86	33.92
115	6.13	7.82	9.44	11.01	12.51	13.96	15.37	16.73	18.06	19.35	20.62	21.85	23.06	24.25	25.42	26.58	27.71	28.83	29.94	31.03	32.12	33.19	34.26
120	6.25	7.97	9.63	11.21	12.74	14.21	15.63	17.00	18.34	19.64	20.91	22.15	23.37	24.56	25.73	26.88	28.02	29.14	30.25	31.35	32.43	33.50	34.57
125	6.36	8.12	9.80	11.41	12.95	14.44	15.87	17.26	18.60	19.91	21.18	22.43	23.65	24.84	26.02	27.17	28.31	29.43	30.54	31.64	32.72	33.79	34.86
130	6.47	8.26	9.96	11.59	13.15	14.65	16.10	17.49	18.85	20.16	21.44	22.69	23.91	25.11	26.29	27.44	28.58	29.70	30.81	31.91	32.99	34.06	35.12
135	6.58	8.39	10.12	11.77	13.35	14.86	16.32	17.72	19.08	20.40	21.68	22.94	24.16	25.36	26.54	27.69	28.83	29.96	31.06	32.16	33.24	34.31	35.37
140	6.68	8.52	10.27	11.94	13.53	15.06	16.52	17.94	19.30	20.63	21.91	23.17	24.40	25.60	26.77	27.93	29.07	30.19	31.30	32.39	33.47	34.54	35.60
145	6.78	8.65	10.42	12.10	13.71	15.25	16.72	18.14	19.51	20.84	22.13	23.39	24.62	25.82	27.00	28.15	29.29	30.41	31.52	32.61	33.69	34.76	35.82
150	6.87	8.77	10.56	12.26	13.88	15.42	16.91	18.33	19.71	21.04	22.33	23.59	24.82	26.03	27.20	28.36	29.50	30.62	31.73	32.82	33.90	34.97	36.02
155	6.96	8.88	10.69	12.41	14.04	15.59	17.08	18.51	19.89	21.23	22.53	23.79	25.02	26.22	27.40	28.56	29.70	30.82	31.92	33.01	34.09	35.16	36.22
160	7.05	8.99	10.82	12.55	14.19	15.75	17.25	18.69	20.07	21.41	22.71	23.97	25.21	26.41	27.59	28.75	29.88	31.00	32.11	33.20	34.27	35.34	36.40
165	7.13	9.09	10.94	12.68	14.34	15.91	17.41	18.85	20.24	21.58	22.88	24.15	25.38	26.59	27.76	28.92	30.06	31.18	32.28	33.37	34.45	35.51	36.56
170	7.21	9.20	11.06	12.81	14.48	16.06	17.57	19.01	20.40	21.75	23.05	24.31	25.55	26.75	27.93	29.09	30.22	31.34	32.44	33.53	34.61	35.67	36.72
175	7.29	9.29	11.17	12.94	14.61	16.20	17.71	19.16	20.56	21.90	23.21	24.47	25.71	26.91	28.09	29.25	30.38	31.50	32.60	33.69	34.76	35.82	36.87
180	7.37	9.39	11.28	13.06	14.74	16.33	17.85	19.31	20.70	22.05	23.36	24.62	25.86	27.06	28.24	29.39	30.53	31.65	32.75	33.83	34.90	35.97	37.02
185	7.44	9.48	11.38	13.17	14.86	16.46	17.99	19.44	20.84	22.19	23.50	24.77	26.00	27.20	28.38	29.54	30.67	31.79	32.89	33.97	35.04	36.10	37.15
190	7.51	9.57	11.49	13.29	14.98	16.59	18.12	19.58	20.98	22.33	23.64	24.90	26.14	27.34	28.52	29.67	30.81	31.92	33.02	34.10	35.17	36.23	37.28
195	7.58	9.65	11.58	13.39	15.10	16.71	18.24	19.70	21.11	22.46	23.77	25.03	26.27	27.47	28.65	29.80	30.93	32.05	33.14	34.23	35.30	36.35	37.40
200	7.65	9.73	11.68	13.49	15.20	16.82	18.36	19.82	21.23	22.58	23.89	25.16	26.39	27.59	28.77	29.92	31.06	32.17	33.26	34.35	35.41	36.47	37.52
Y2BH	27	21	17	15	13	12	10	10	9	8	8	7	7	6	6	6	5	5	5	5	4	4	4

Site class	SI ranges (m)	Average SI value (m)	Definition	Timber productivity rating (TPR)
1	0 < SI ≤ 7	6	Unproductive	U
2	7 < SI ≤ 12	10	Fair/poor	F
3	12< SI ≤ 16	14	Medium	M
4	16 < SI ≤ 20	18	Good	G
5	SI > 20	22	Superior	S

Note: top height is the average height of the 100 largest DBH trees per ha, SI is site index, defined as the top height at 50 years breast height age (bhage), and Y2BH is the years needed to reach breast height (1.3 m). In practice, top height and bhage can be obtained by averaging the heights and bhages of three largest DBH trees in each 0.03-ha plot, or four largest DBH trees in each 0.04-ha plot.

2.2 The Mortality Model, Stand Density Factor and Initial Density

The observed mortality trajectories from lodgepole pine PSPs are shown in Figure 3. The mortality model based on these trajectories takes the form shown in [4]. It was derived using the difference equation technique frequently seen in estimating site index models (Clutter et al. 1983; Huang 1997).

$$[4] \quad N_2 = b_0 + (N_1 - b_0) \times \left(\frac{1 + \exp[b_1 + b_2 \ln(1 + bhage_1) + b_3 \ln(SI_{totage})]}{1 + \exp[b_1 + b_2 \ln(1 + bhage_2) + b_3 \ln(SI_{totage})]} \right)$$

$$b_0 = 250.818200 \qquad b_1 = -\pi \times \left((\pi / 5) / \sqrt{N_1 / 1000} + 4.051135 \right)$$

$$b_2 = 1.968526 \times (N_1 / 1000)^{1/bhage_1} \qquad b_3 = 2.360369$$

where $bhage_1$ and $bhage_2$ are breast height ages at time one and time two; N_1 and N_2 are stand density (in stems/ha) at $bhage_1$ and $bhage_2$, respectively; and SI_{totage} is the total age based site index, defined as the top height at 50 years total age. Using 50 years bhage as the reference age and defining the stand density at 50 years bhage as the Stand Density Factor (SDF), equation [4] can be re-written as follows:

$$[5] \quad N = b_0 + (SDF - b_0) \times \left(\frac{1 + \exp[b_1 + b_2 \ln(1 + 50) + b_3 \ln(SI_{totage})]}{1 + \exp[b_1 + b_2 \ln(1 + bhage) + b_3 \ln(SI_{totage})]} \right)$$

$$b_0 = 250.818200 \qquad b_1 = -\pi \times \left((\pi / 5) / \sqrt{SDF / 1000} + 4.051135 \right)$$

$$b_2 = 1.968526 \times (SDF / 1000)^{1/50} \qquad b_3 = 2.360369$$

Equation [5] is a special variant of the difference equation [4], with N_1 replaced by SDF and $bhage_1$ by the reference bhage 50. Having the current stand density N, bhage and SI_{totage} (if SI_{bhage} is available, it can be converted into equivalent SI_{totage}), SDF can be solved numerically from equation [5]. Once SDF is known, stand density at any other bhage can be obtained from [5]. Figures 4 and 5 show some example mortality curves generated from equation [5].

The stand density factor (SDF) plays a pivotal role in stand density projections. In essence, SDF in a mortality model acts like SI in site index models. It provides the basis for stand density projections (just like SI provides the basis for height projections). On any given site, SDF was found to be approximately independent of age. This is quite unique among many stand density measures. The mortality model [5] is one of the most important drivers in GYPSY. It is also one of the most difficult models to develop.

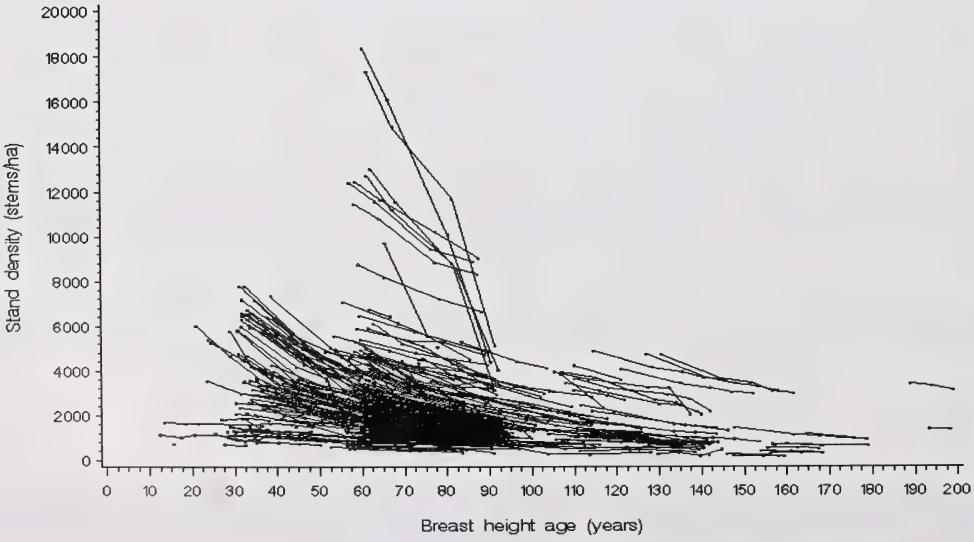


Figure 3. Observed lodgepole pine mortality trajectories from permanent sample plots.

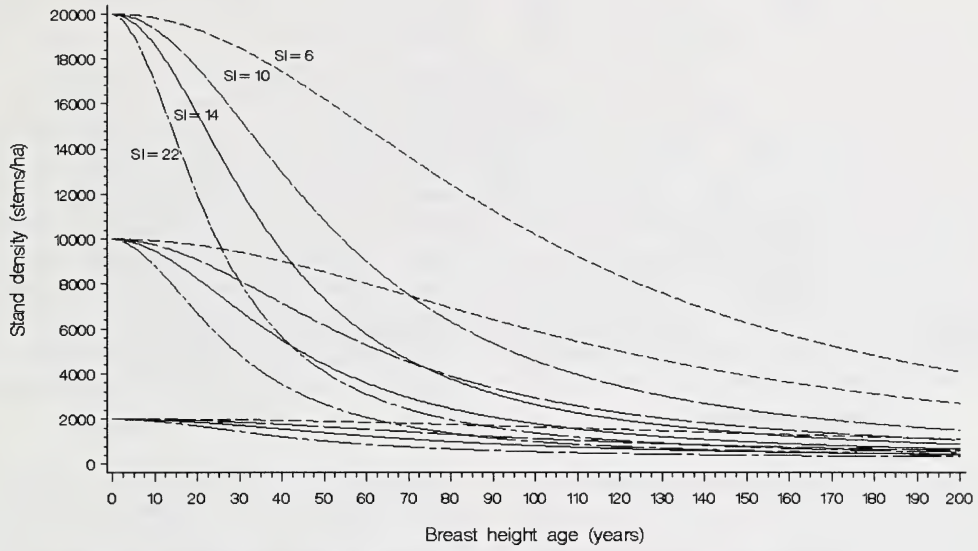


Figure 4. Lodgepole pine mortality curves at different initial densities and on different sites: SI_{bhage} = 6 m (short dash), SI_{bhage} = 10 m (long dash), SI_{bhage} = 14 m (solid), and SI_{bhage} = 22 m (dot-dash).

Estimating initial density

The mortality function [5] can be used to estimate stand density at any breast height age. One of the most important usages of this function is to derive the initial density N_0 at bhage zero. To estimate N_0 from [5], three variables must be known beforehand: current density N (stems/ha), bhage and SI_{totage} (or SI_{bhage}). If SI_{totage} (or SI_{bhage}) is unknown, top height can be used instead.

Assuming that the three variables (N, bhage, and SI_{totage}) are known, SDF can be derived numerically from [5]. Once SDF is known, initial density at bhage zero is calculated by:

$$[6] \qquad N_0 = b_0 + (SDF - b_0) \times \left(\frac{1 + \exp[b_1 + b_2 \ln(1+50) + b_3 \ln(SI_{totage})]}{1 + \exp[b_1 + b_2 \ln(1+0) + b_3 \ln(SI_{totage})]} \right)$$

where b_0-b_3 are the same as in [5]. For most practical purposes, the initial density at bhage zero can also be assumed to be the initial density at totage zero. This is because the early mortality trajectories observed from the provincial stand dynamics and monitor plot data, resemble horizontal lines in almost all cases.

Sometimes, the initial stand density at bhage zero is known (or assumed to be known). In order to estimate future stand densities, SDF must be solved first from equation [6]. This can be achieved by using an iterative routine similar to that described by Huang (1994b). Once SDF is available, site-specific stand density at any bhage can be projected directly from equation [5]. As an example, assuming that the initial density at bhage = 0 is: N_0 = 7000 (stems/ha), and SI_{bhage} = 16 m (or SI_{totage} = 14.6878 m). From equation [6], SDF can be solved iteratively to give SDF = 2986. Once SDF is available, predicted stand densities at bhage 10, 30, 50, 80, 100 and 150 are found to be 6579, 4638, 2986, 1680, 1243 and 732, respectively, which are obtained by substituting the SDF and bhage values into [5].

Table 4 lists the stand density projections at different initial densities, and on different sites. It can be used to predict stand density at any age, and estimate initial density from current density. For instance, for an existing stand with an observed density of 1288 (stems/ha), if the current bhage is 125 (years) and the site index is 14 (m), the estimated stand density factor (N at bhage 50) is 4414 (Part 5, Table 4), which corresponds to an initial density of 10000. Given this initial density, the entire stand density trajectory can be read directly from Table 4. If an exact match of the density observations is not available, interpolations or approximations for the stand density projections can be made based on Table 4 and Figure 5.

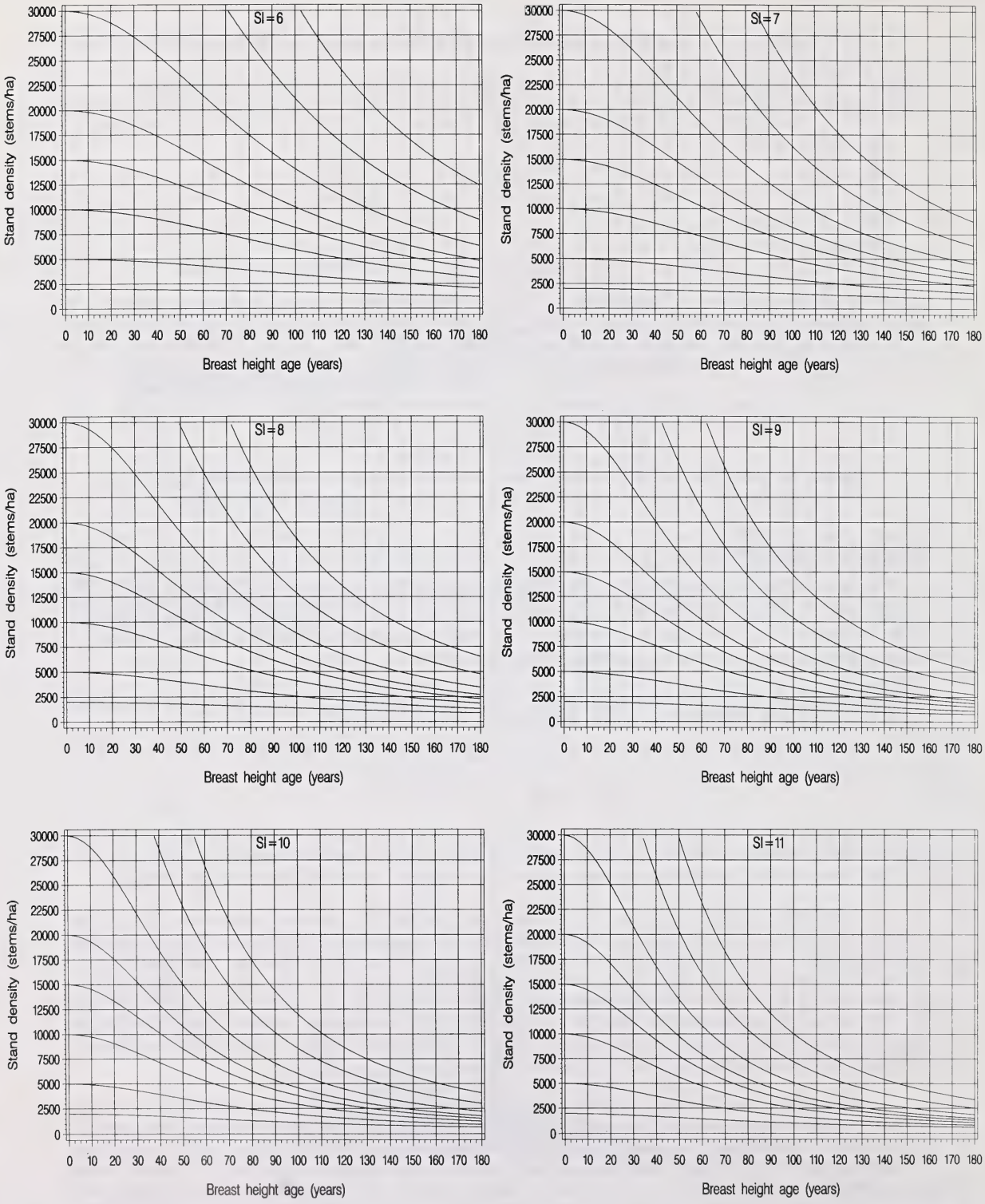
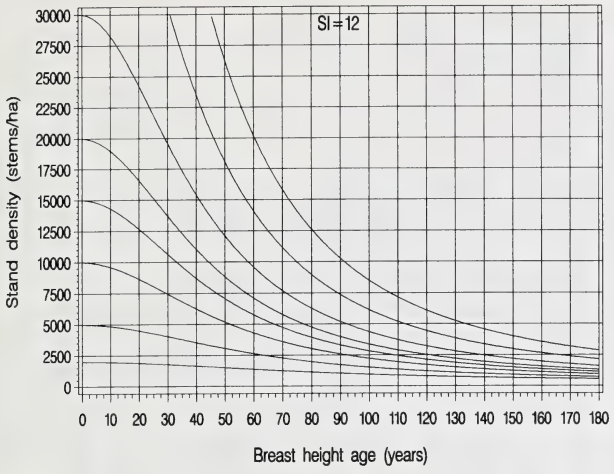
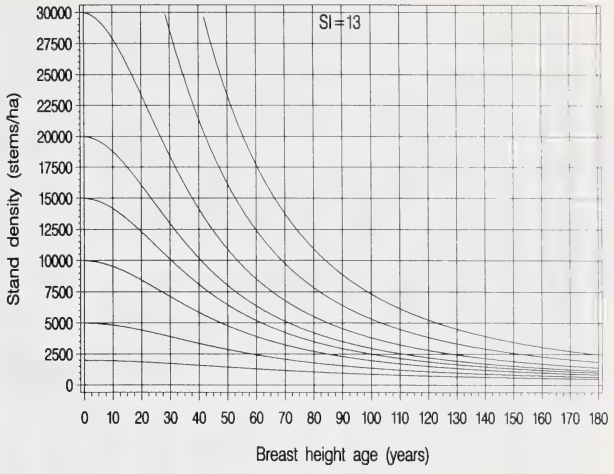
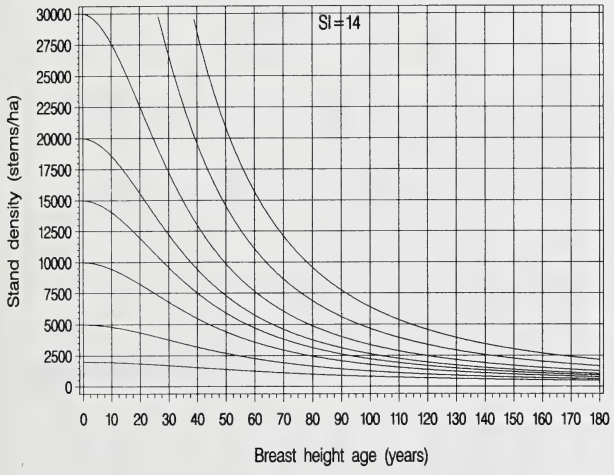
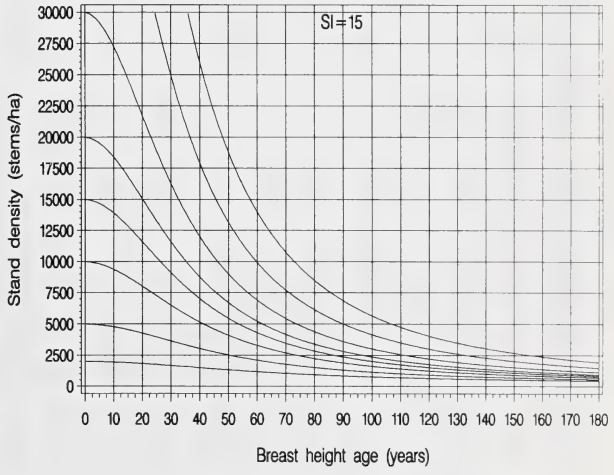


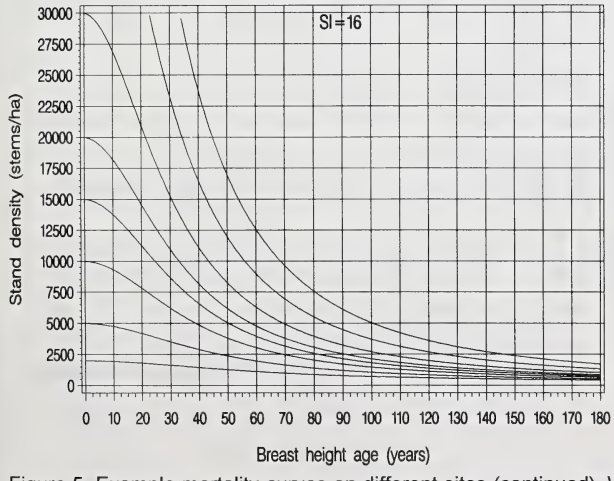
Figure 5. Example mortality curves on different sites. Where SI (site index) refers to the top height at 50 years bhage. Eight initial densities are shown in each graph: 2000, 5000, 10000, 15000, 20000, 30000, 50000 and 80000 (stems/ha).











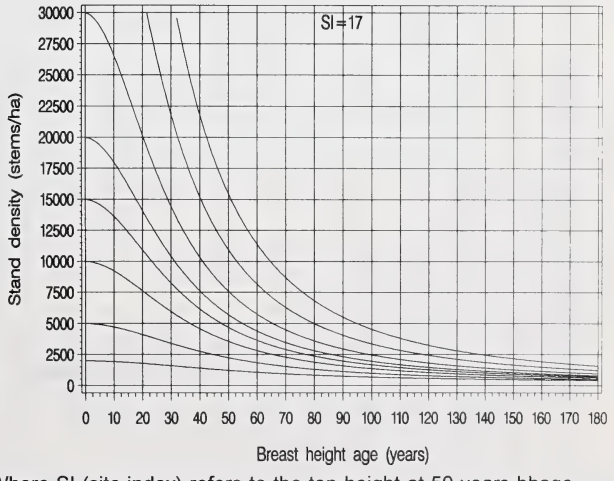


Figure 5. Example mortality curves on different sites (continued). Where SI (site index) refers to the top height at 50 years bhage. Eight initial densities are shown in each graph: 2000, 5000, 10000, 15000, 20000, 30000, 50000 and 80000 (stems/ha).

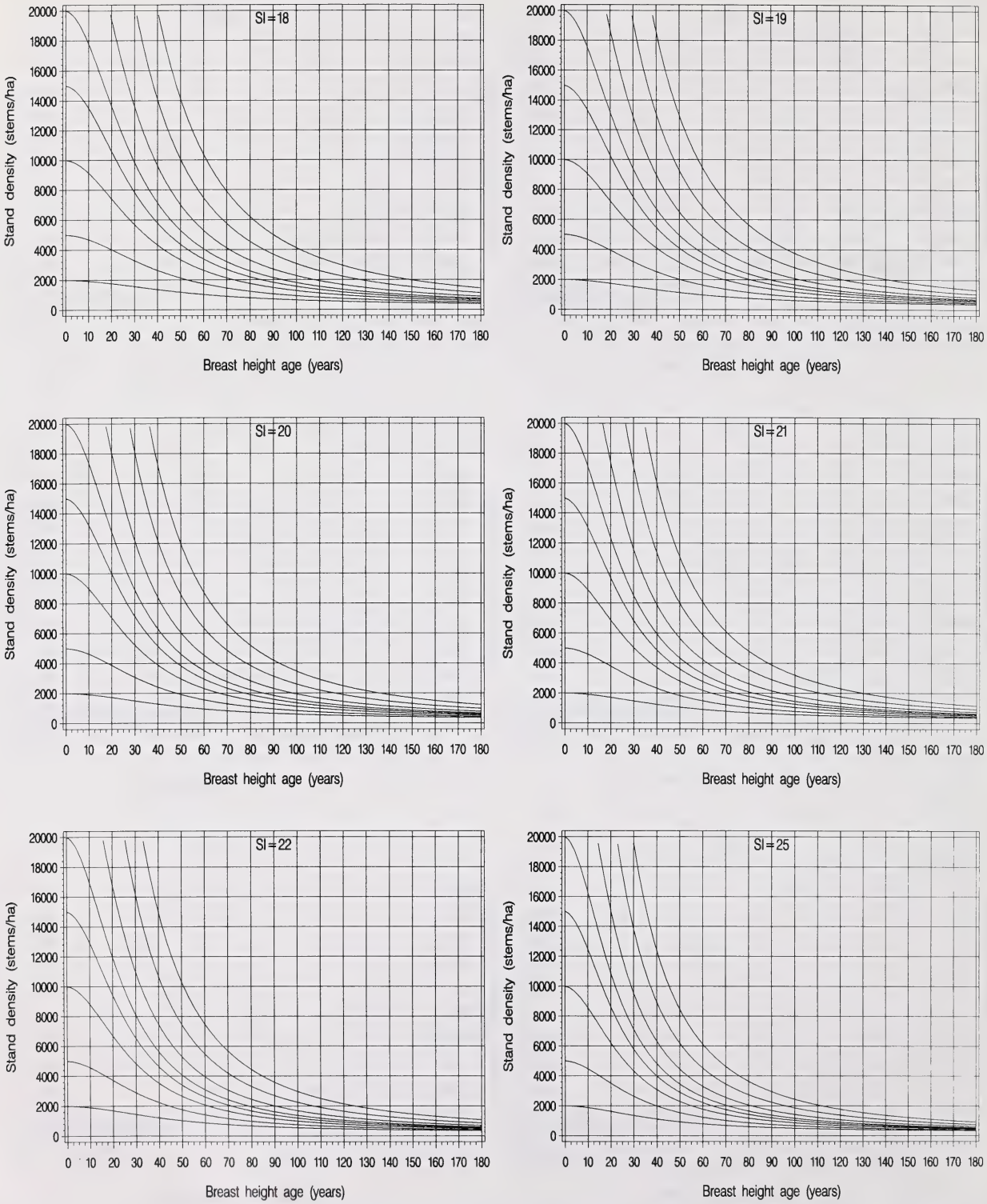


Figure 5. Example mortality curves on different sites (continued). Where SI (site index) refers to the top height at 50 years bhage. Eight initial densities are shown in each graph: 2000, 5000, 10000, 15000, 20000, 30000, 50000 and 80000 (stems/ha).

Table 4. Lodgepole pine stand density projection table (Part 1 of 7).

N_0 /ha	Bhage /yrs	Site index (SI, m) at 50 years bhage																				
		5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
		stand density (stems/ha)																				
800	5	800	800	800	800	799	799	799	799	798	798	798	797	797	797	796	796	795	795	794	794	793
800	10	800	799	799	798	798	797	796	796	795	794	792	791	790	789	788	786	785	783	782	780	779
800	15	799	799	798	797	795	794	792	791	789	787	784	782	780	777	775	772	769	767	764	761	758
800	20	799	798	796	794	792	790	787	784	781	778	774	770	766	762	758	754	750	745	741	737	732
800	25	798	796	794	792	788	785	781	777	772	767	762	756	751	745	739	733	727	721	715	709	703
800	30	797	795	792	788	784	779	773	767	761	754	747	740	733	725	718	710	703	695	688	680	673
800	35	796	793	789	784	779	772	765	757	749	740	732	723	714	704	695	686	677	668	659	651	642
800	40	795	791	786	780	773	764	756	746	736	726	715	704	693	683	672	661	651	641	631	622	612
800	45	793	789	782	775	766	756	745	734	722	710	697	685	673	661	649	637	626	615	604	594	584
800	50	792	786	779	770	759	747	735	721	708	694	680	666	652	639	626	613	601	589	578	567	557
800	55	790	783	775	764	752	738	723	708	693	677	662	646	631	617	603	590	577	565	553	542	532
800	60	789	780	770	758	744	728	712	695	678	660	644	627	611	596	582	568	555	542	531	520	509
800	65	787	777	765	751	735	718	700	681	662	644	626	608	592	576	561	547	534	521	510	499	488
800	70	785	774	761	745	727	707	687	667	647	627	608	590	573	557	542	528	514	502	490	479	469
800	75	783	771	755	738	718	697	675	653	632	611	591	573	555	539	524	509	496	484	473	462	452
800	80	780	767	750	730	709	686	663	639	617	595	575	556	538	522	506	492	479	467	456	446	437
800	85	778	763	744	723	699	675	650	626	602	580	559	540	522	506	491	477	464	452	442	432	423
800	90	775	759	739	715	690	664	638	612	588	566	544	525	507	491	476	462	450	438	428	419	410
800	95	773	755	733	708	681	653	626	599	575	551	530	511	493	477	462	449	437	426	416	407	398
800	100	770	751	727	700	671	642	614	587	561	538	516	497	480	464	449	436	425	414	405	396	388
800	105	767	746	720	692	661	631	602	574	548	525	504	484	467	452	438	425	414	404	394	386	379
800	110	765	742	714	684	652	620	590	562	536	513	491	472	455	440	427	415	404	394	385	377	370
800	115	762	737	708	675	642	610	579	550	524	501	480	461	444	430	417	405	394	385	377	369	362
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800	135	749	717	681	643	605	570	537	508	482	459	440	422	408	394	383	373	364	356	349	343	337
800	140	745	712	674	635	596	560	527	498	473	450	431	414	400	387	376	366	358	350	344	338	332
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1000	90	957	929	895	857	817	777	739	702	669	637	609	584	561	540	521	504	489	475	462	450	440
1000	95	952	922	885	844	802	761	721	683	649	618	590	564	542	521	503	487	472	459	447	436	426
1000	100	948	914	875	832	787	744	703	665	630	599	571	546	524	504	487	471	457	444	433	422	413
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1000	110	938	899	854	806	758	712	669	630	596	565	538	514	493	474	458	443	430	419	408	399	390
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1000	140	905	850	791	731	676	626	582	544	512	484	461	440	423	408	395	384	374	366	358	351	345
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1000	150	894	834	770	708	651	600	557	520	489	463	441	422	406	392	380	370	361	353	346	340	334
1000	155	888	825	760	696	639	588	545	509	479	453	432	414	398	385	374	364	355	348	341	335	330
1000	160	881	817	749	685	627	577	534	499	469	444	424	406	391	378	368	358	350	343	336	331	326
1000	165	875	808	739	674	616	566	524	489	460	436	416	399	384	372	362	353	345	338	332	327	322
1000	170	869	800	729	663	605	555	514	480	451	428	408	392	378	366	356	348	340	334	328	323	318
1000	175	863	791	719	653	594	545	504	471	443	420	401	386	372	361	351	343	336	330	324	319	315
1000	180	857	783	710	642	584	535	495	462	435	413	395	380	367	356	347	339	332	326	320	316	312
1000	185	850	775	700	632	574	526	486	454	428	407	389	374	362	351	342	335	328	322	317	313	309
1000	190	844	766	691	623	565	517	478	447	421	400	383	369	357	347	338	331	325	319	314	310	306
1000	195	838	758	681	613	556	508	470	439	415	394	378	364	352	343	334	327	321	316	311	307	303
1000	200	831	750	672	604	547	500	463	433	408	389	373	359	348	339	331	324	318	313	309	305	301

Note: N_0 = initial density (defined as stems/ha for trees taller than 1.3 m at bhage zero); SI = site index (top height at 50 years bhage); Top height = average height (m) of the 100 largest DBH trees per ha; Stand density values at bhage 50 are stand density factors (SDF).

Table 4. Lodgepole pine stand density projection table (Part 2 of 7).

N_0 /ha	Bhage /yrs	Site index (SI, m) at 50 years bhage																				
		5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
		stand density (stems/ha)																				
2000	5	1999	1998	1998	1997	1995	1994	1992	1991	1989	1987	1985	1983	1981	1978	1976	1974	1971	1969	1966	1964	1961
2000	10	1997	1995	1992	1988	1984	1979	1974	1969	1963	1957	1950	1943	1936	1929	1922	1914	1907	1899	1892	1884	1876
2000	15	1993	1989	1983	1975	1967	1957	1947	1935	1923	1911	1898	1885	1871	1857	1843	1829	1815	1801	1787	1773	1759
2000	20	1989	1981	1970	1958	1944	1928	1910	1892	1872	1852	1832	1811	1790	1769	1748	1727	1706	1685	1665	1644	1624
2000	25	1983	1971	1955	1936	1915	1892	1866	1840	1812	1784	1755	1727	1698	1670	1642	1615	1588	1561	1536	1510	1486
2000	30	1975	1958	1937	1911	1882	1850	1816	1781	1745	1709	1673	1637	1601	1567	1533	1501	1469	1438	1408	1379	1352
2000	35	1967	1944	1916	1882	1845	1804	1761	1717	1673	1629	1586	1544	1503	1464	1426	1389	1354	1320	1288	1257	1228
2000	40	1958	1929	1893	1851	1804	1754	1703	1651	1599	1549	1499	1452	1407	1364	1322	1283	1246	1211	1178	1146	1116
2000	45	1947	1911	1867	1816	1760	1702	1642	1582	1524	1468	1414	1363	1315	1269	1226	1186	1148	1112	1079	1047	1018
2000	50	1935	1892	1839	1779	1715	1647	1580	1514	1450	1389	1332	1278	1228	1181	1137	1097	1059	1024	991	960	932
2000	55	1923	1872	1810	1741	1667	1592	1518	1446	1378	1314	1254	1199	1148	1100	1057	1017	980	945	914	884	857
2000	60	1909	1850	1779	1701	1619	1536	1456	1380	1308	1242	1181	1125	1074	1027	984	945	909	876	846	818	792
2000	65	1894	1827	1747	1660	1570	1481	1396	1316	1242	1174	1113	1057	1006	960	919	881	847	815	787	760	736
2000	70	1879	1803	1714	1618	1521	1427	1337	1255	1179	1111	1050	995	945	900	860	824	791	762	735	710	687
2000	75	1863	1778	1680	1576	1473	1373	1281	1196	1120	1052	992	938	890	847	808	774	743	715	689	666	645
2000	80	1846	1752	1646	1534	1425	1322	1227	1141	1065	998	938	886	839	798	762	729	699	673	649	628	608
2000	85	1828	1726	1611	1492	1378	1271	1175	1089	1014	948	890	839	794	755	720	689	661	636	614	594	576
2000	90	1810	1698	1576	1451	1332	1223	1126	1041	966	901	845	796	753	716	683	653	627	604	583	564	547
2000	95	1791	1671	1540	1410	1288	1177	1080	995	922	859	804	757	716	680	649	622	597	575	556	538	522
2000	100	1772	1643	1505	1370	1245	1133	1036	952	880	819	767	722	683	649	619	593	570	550	531	515	500
2000	105	1752	1615	1470	1331	1203	1091	994	912	842	783	733	690	652	620	592	568	546	527	510	494	481
2000	110	1732	1586	1436	1292	1163	1051	956	875	807	750	701	660	625	594	568	545	524	506	490	476	463
2000	115	1711	1558	1402	1255	1125	1013	919	840	775	719	673	634	600	571	546	524	505	488	473	460	448
2000	120	1690	1530	1368	1219	1088	977	885	808	744	691	647	609	577	550	526	505	487	471	457	445	434
2000	125	1669	1501	1335	1184	1053	943	853	778	716	665	623	587	556	530	508	489	472	457	443	431	421
2000	130	1648	1473	1303	1150	1020	911	823	750	691	641	601	566	538	513	492	473	457	443	431	419	410
2000	135	1626	1445	1272	1118	988	881	794	724	667	619	580	548	520	497	477	459	444	431	419	409	399
2000	140	1605	1418	1241	1086	957	852	768	700	644	599	562	531	504	482	463	447	432	420	409	399	390
2000	145	1583	1391	1211	1056	928	825	743	677	624	580	544	515	490	469	451	435	421	409	399	390	381
2000	150	1561	1364	1182	1027	901	800	720	656	604	563	528	500	476	456	439	424	411	400	390	381	374
2000	155	1539	1337	1153	999	874	776	698	636	586	546	514	487	464	445	429	414	402	392	382	374	366
2000	160	1518	1311	1126	972	849	753	677	617	570	531	500	474	453	434	419	405	394	384	375	367	360
2000	165	1496	1285	1099	946	826	731	658	600	554	517	487	463	442	425	410	397	386	377	368	361	354
2000	170	1475	1260	1073	922	803	711	640	584	540	504	476	452	432	416	402	390	379	370	362	355	348
2000	175	1453	1236	1048	898	782	692	623	569	526	492	465	442	423	407	394	382	372	364	356	349	343
2000	180	1432	1212	1024	876	761	674	607	555	514	481	455	433	415	400	387	376	366	358	351	344	339
2000	185	1411	1188	1001	854	742	657	592	541	502	470	445	424	407	393	380	370	361	353	346	340	334
2000	190	1390	1165	978	833	724	641	577	529	491	460	436	416	400	386	374	364	355	348	341	335	330
2000	195	1370	1142	957	814	706	625	564	517	480	451	428	409	393	380	368	359	351	343	337	331	326
2000	200	1349	1120	936	795	689	611	551	506	471	443	420	402	387	374	363	354	346	339	333	328	323
3000	5	2998	2997	2995	2993	2990	2988	2985	2981	2978	2974	2970	2966	2961	2957	2953	2948	2943	2938	2934	2929	2924
3000	10	2993	2989	2983	2976	2967	2958	2948	2937	2925	2912	2900	2886	2873	2859	2845	2831	2817	2802	2787	2773	2758
3000	15	2986	2976	2964	2949	2931	2912	2891	2869	2845	2821	2796	2770	2744	2718	2692	2666	2640	2613	2587	2561	2536
3000	20	2976	2959	2938	2913	2884	2852	2817	2781	2744	2705	2666	2627	2588	2549	2510	2472	2434	2397	2361	2325	2290
3000	25	2963	2938	2906	2868	2825	2779	2729	2678	2626	2573	2520	2468	2416	2365	2316	2268	2221	2175	2131	2088	2046
3000	30	2948	2912	2868	2816	2758	2695	2630	2564	2497	2430	2365	2301	2239	2179	2121	2066	2012	1961	1912	1865	1820
3000	35	2930	2883	2825	2757	2683	2604	2524	2443	2362	2284	2208	2135	2065	1999	1935	1875	1818	1764	1713	1664	1618
3000	40	2910	2850	2777	2693	2602	2508	2412	2318	2227	2138	2054	1975	1900	1829	1763	1700	1642	1587	1536	1488	1442
3000	45	2887	2814	2724	2624	2517	2408	2299	2194	2093	1997	1908	1824	1746	1673	1606	1544	1486	1432	1382	1335	1292
3000	50	2863	2774	2668	2551	2429	2306	2186	2071	1963	1863	1770	1684	1605	1533	1466	1405	1349	1297	1249	1205	1164
3000	55	2836	2732	2610	2476	2340	2204	2075	1953	1840	1737	1642	1556	1478	1407	1342	1283	1229	1180	1135	1093	1055
3000	60	2807	2687	2548	2400	2250	2104	1967	1840	1725	1620	1525	1440	1364	1295	1233	1176	1125	1079	1036	998	962
3000	65	2777	2641	2486	2322	2161	2006	1864	1734	1617	1512	1419	1336	1262	1196	1136	1083	1035	991	952	916	883
3000	70	2745	2592	2421	2245	2073	1912	1765	1634	1517	1414	1323	1242	1171	1108	1052	1001	956	916	879	846	816
3000	75	2711	2543	2357	2168	1987	1821	1672	1540	1425	1324	1235	1158	1090	1030	977	930	888	850	816	786	758
3000	80	2677	2492	2291	2092	1904	1735	1585	1454	1340	1242	1157	1083	1018	962	912	868	828	793	762	733	708
3000	85	2641	2440	2226	2017	1824	1652	1503	1373	1263	1168	1086	1015	954	901	854	813	776	743	714	688	664
3000	90	2604	2388	2162	1945	1748	1575	1426	1299	1192	1100	1022	955	897	847	803	764	730	700	673	649	627
3000	95	2566	2335	2098	1874	1674	1501	1355	1231	1127	1039	964	900	846	799	757	721	690	661	636	614	594
3000	100	2527	2282	2035	1806	1604	1433	1288	1168	1067	983	912	852	800	756	717	683	654	628	604	583	565
3000	105	2488	2230	1973	1740	1538	1368	1227	1110	1013	933	865	808	759	717	681	650	622	598	576	557	539
3000	110	2448	2177	1913	1677	1475	1307	1169	1056	964	887	822	768	722	683	649	619	594	571	551	533	517
3000	115	2408	2125	1855	1616	1415	1250	1116	1007	918	845	784	732	689	652	620	592	568	547	528	511	496
3000	120	2368	2074	1798	1558	1359	1197	1067	962	876	806	748	700	659	624	594	568	546	526	508	492	478
3000	125	2327	2023	1742	1502	1306	1148	1021	920	838	771	716	670	632	599	571	546	525	506	490	475	462
3000	130	2287	1973	1689	1449	1255	1101	979	882	803	740	687	644	607	576	550	527	507	489	474	460	448
3000	135	2246	1925	1637	1399	1208	1058	940	846	771	710	660	619	585	555	530	509	490	474	459	446	435
3000	140	2206	1877	1587	1351	1163	1017	903	813	741	683	636	597	564	537	513	493	475	459	446	434	423
3000	145	2166	1830	1539	1305	1121	979	869	783	714	659	614	577	545	519	497	478	461	446	434	422	412
3000	150	2126	1784	1493	1261	1082	944	837	754	689	636	593	558	528	504	482	464	448	435	423	412	402
3000	155	2086	1740	1449	1220	1044	911	808	728	665	615	574	541	513	489	469	452	437	424	412	402	393
3000	160	2047	1696	1406	1181	1009	879	780	704	643	595	557	525	498	476	457	440	426	414	403	394	385
3000	165	2009	1654	1365	1143	976	850	755	681	623	578	540	510	485	464	446	430	417	405	395	386	378
3000	170	1970	1613	1326	1108	945	823	731	660	605	561	525	496	472	452	435	420	408	397	387	378	371
3000	175	1933	1573	1288	1074	915	797	708	640	587	545	512	484	461	442	426	412	400	389	380	372	364
3000	180	1896	1535	1252	1042	887	773	687	622	571	531	499	472	451	432	417	403	392	382	373	365	358
3000	185	1860	1498	1218	1012	861	750	668	605	556	518	487	462	441	423	408	396	385	375	367	360	353
3000	190	1824	1461	1185	983	836	729	649	589	542	505	476	452	432	415	401	389	378	369	361	354	348
3000	195	1789	1426	1153	955	813	709	632	574	529	494	465	442	423	407	394	382	372	364	356	349	343
3000	200	1754	1392	1123	929	790	690	616	560	517	483	456	433	415	400	387	376	367	358	351	345	339

Note: N_0 = initial density (defined as stems/ha for trees taller than 1.3 m at bhage zero); SI = site index (top height at 50 years bhage); Top height = average height (m) of the 100 largest DBH trees per ha; Stand density values at bhage 50 are stand density factors (SDF).

Table 4. Lodgepole pine stand density projection table (Part 3 of 7).

N_0 /ha	Bhage /yrs	Site index (SI, m) at 50 years bhage																				
		5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
		stand density (stems/ha)																				
4000	5	3997	3995	3992	3989	3985	3980	3975	3970	3964	3958	3952	3945	3939	3932	3925	3917	3910	3903	3895	3887	3879
4000	10	3989	3982	3972	3961	3947	3932	3916	3898	3880	3860	3840	3820	3799	3777	3755	3733	3711	3688	3666	3643	3620
4000	15	3977	3961	3941	3917	3889	3859	3825	3790	3753	3715	3676	3637	3597	3557	3517	3477	3437	3397	3358	3319	3280
4000	20	3961	3934	3899	3858	3812	3762	3708	3651	3593	3534	3475	3415	3356	3297	3239	3182	3126	3071	3017	2965	2914
4000	25	3940	3899	3847	3787	3719	3646	3569	3490	3410	3330	3250	3172	3095	3021	2948	2878	2810	2744	2680	2619	2560
4000	30	3915	3857	3786	3703	3611	3515	3415	3313	3213	3113	3017	2923	2833	2747	2664	2585	2509	2437	2369	2303	2241
4000	35	3885	3809	3716	3609	3493	3373	3250	3129	3010	2895	2785	2680	2581	2487	2398	2315	2236	2162	2092	2026	1964
4000	40	3852	3755	3638	3507	3367	3224	3081	2942	2809	2682	2562	2450	2346	2248	2157	2073	1994	1920	1852	1788	1728
4000	45	3815	3697	3555	3399	3236	3072	2911	2758	2614	2479	2354	2238	2132	2033	1943	1860	1783	1712	1647	1586	1530
4000	50	3775	3633	3467	3286	3101	2919	2745	2581	2429	2289	2162	2045	1939	1843	1755	1675	1601	1534	1472	1416	1363
4000	55	3731	3566	3374	3171	2967	2769	2583	2412	2256	2114	1986	1872	1768	1675	1591	1514	1445	1382	1325	1272	1224
4000	60	3685	3495	3279	3054	2833	2623	2429	2253	2095	1954	1828	1717	1617	1528	1448	1376	1311	1253	1199	1151	1107
4000	65	3636	3421	3182	2938	2702	2482	2283	2105	1948	1809	1687	1579	1483	1399	1324	1256	1196	1142	1093	1049	1008
4000	70	3584	3345	3084	2822	2574	2348	2146	1968	1813	1678	1560	1456	1366	1286	1216	1153	1097	1047	1002	961	924
4000	75	3531	3267	2986	2709	2451	2220	2018	1842	1690	1559	1446	1348	1263	1188	1122	1064	1012	966	924	887	853
4000	80	3475	3188	2888	2598	2333	2100	1899	1726	1579	1453	1345	1252	1171	1101	1040	986	938	895	857	823	792
4000	85	3418	3109	2791	2490	2221	1988	1789	1620	1478	1357	1254	1167	1091	1025	968	918	874	834	799	768	739
4000	90	3360	3029	2696	2386	2114	1882	1687	1523	1386	1271	1174	1091	1020	959	905	859	818	781	749	720	694
4000	95	3300	2949	2602	2287	2014	1784	1593	1434	1303	1193	1101	1023	957	899	850	806	768	735	705	678	654
4000	100	3240	2870	2511	2191	1919	1692	1506	1354	1228	1124	1036	963	900	847	801	760	725	694	666	641	619
4000	105	3179	2791	2423	2100	1829	1607	1426	1280	1160	1060	978	909	850	800	757	719	687	658	632	609	589
4000	110	3118	2714	2337	2013	1745	1528	1353	1212	1097	1003	926	860	805	758	718	683	652	626	602	581	562
4000	115	3056	2638	2255	1930	1666	1454	1285	1150	1041	952	878	817	765	721	683	651	622	597	575	555	538
4000	120	2995	2563	2175	1852	1592	1386	1223	1094	990	905	835	778	729	688	652	622	595	572	551	533	516
4000	125	2933	2490	2099	1777	1522	1323	1166	1042	943	862	797	742	696	657	624	596	571	549	530	512	497
4000	130	2872	2418	2025	1707	1457	1264	1113	994	900	823	761	710	667	630	599	572	549	528	510	494	480
4000	135	2812	2349	1955	1640	1397	1209	1064	950	860	788	729	680	640	605	576	551	529	510	493	478	465
4000	140	2752	2281	1887	1577	1340	1158	1019	910	824	756	700	654	615	583	555	532	511	493	477	463	451
4000	145	2692	2215	1823	1518	1286	1111	977	873	791	726	673	629	593	563	537	514	495	478	463	450	438
4000	150	2634	2152	1761	1461	1236	1067	938	839	761	699	648	607	573	544	519	498	480	464	450	437	426
4000	155	2576	2090	1702	1408	1189	1026	902	807	733	674	626	587	554	527	504	484	466	451	438	426	416
4000	160	2519	2030	1646	1358	1145	987	869	778	707	650	605	568	537	511	489	470	454	440	427	416	406
4000	165	2464	1973	1592	1310	1104	952	838	750	683	629	586	551	521	497	476	458	443	429	417	407	398
4000	170	2409	1917	1541	1265	1065	918	809	725	661	609	568	535	507	484	464	447	432	419	408	398	389
4000	175	2355	1863	1492	1223	1029	887	782	702	640	591	552	520	494	471	453	436	423	410	400	390	382
4000	180	2303	1812	1446	1183	995	858	757	680	621	574	537	506	481	460	442	427	414	402	392	383	375
4000	185	2252	1762	1401	1145	962	831	733	660	603	558	523	494	470	450	433	418	405	394	385	376	369
4000	190	2202	1714	1359	1109	932	805	711	641	586	544	510	482	459	440	424	410	398	387	378	370	363
4000	195	2153	1667	1319	1075	904	781	691	623	571	530	497	471	449	431	415	402	391	381	372	364	358
4000	200	2105	1623	1281	1043	877	758	671	606	556	517	486	461	440	422	408	395	384	375	366	359	353
5000	5	4996	4993	4989	4984	4978	4972	4965	4957	4949	4941	4932	4923	4913	4904	4894	4884	4873	4863	4852	4841	4830
5000	10	4985	4974	4960	4944	4925	4904	4881	4856	4830	4803	4774	4745	4716	4686	4655	4624	4593	4562	4531	4499	4468
5000	15	4967	4945	4916	4881	4842	4799	4752	4703	4651	4598	4544	4489	4434	4379	4323	4268	4213	4159	4105	4052	4000
5000	20	4943	4905	4856	4798	4733	4662	4586	4508	4427	4345	4264	4182	4101	4021	3942	3865	3790	3717	3645	3575	3507
5000	25	4913	4854	4781	4695	4600	4498	4391	4282	4173	4063	3956	3850	3747	3647	3551	3458	3368	3282	3199	3119	3043
5000	30	4877	4794	4693	4576	4449	4315	4177	4039	3902	3769	3640	3516	3397	3283	3175	3072	2975	2882	2794	2711	2632
5000	35	4835	4726	4594	4444	4284	4118	3951	3787	3628	3476	3331	3194	3065	2944	2830	2723	2623	2529	2441	2359	2281
5000	40	4787	4649	4484	4301	4109	3914	3721	3536	3360	3194	3039	2895	2761	2637	2522	2415	2317	2225	2141	2062	1988
5000	45	4734	4565	4367	4151	3928	3707	3493	3292	3103	2929	2769	2622	2488	2365	2252	2149	2054	1967	1887	1813	1745
5000	50	4676	4475	4243	3995	3745	3502	3272	3058	2863	2685	2524	2378	2246	2126	2018	1920	1830	1749	1674	1606	1543
5000	55	4614	4380	4115	3837	3563	3302	3060	2839	2640	2462	2303	2160	2033	1919	1816	1724	1640	1565	1496	1433	1376
5000	60	4547	4280	3983	3678	3384	3109	2859	2635	2437	2261	2106	1968	1847	1739	1642	1556	1479	1409	1346	1289	1237
5000	65	4477	4177	3849	3521	3210	2925	2671	2447	2251	2080	1930	1799	1684	1583	1493	1413	1341	1277	1220	1167	1120
5000	70	4404	4071	3716	3367	3042	2752	2497	2275	2083	1918	1775	1651	1542	1447	1364	1290	1224	1165	1112	1065	1022
5000	75	4328	3964	3582	3216	2882	2589	2335	2118	1932	1773	1637	1520	1418	1330	1252	1184	1123	1069	1021	978	938
5000	80	4250	3855	3451	3070	2730	2436	2186	1974	1796	1644	1515	1405	1310	1227	1155	1092	1036	987	943	903	867
5000	85	4170	3746	3321	2930	2587	2295	2049	1844	1673	1529	1407	1303	1214	1138	1071	1013	961	916	875	839	806
5000	90	4089	3638	3195	2795	2451	2163	1924	1726	1562	1426	1311	1213	1130	1059	997	943	896	854	817	783	754
5000	95	4006	3530	3072	2667	2324	2041	1809	1619	1463	1333	1225	1134	1056	990	933	883	839	800	766	735	708
5000	100	3923	3423	2954	2545	2205	1928	1704	1522	1373	1250	1149	1063	991	929	875	829	789	753	721	693	668
5000	105	3839	3318	2839	2429	2094	1824	1607	1433	1292	1176	1080	1000	932	875	825	782	744	711	682	656	633
5000	110	3755	3215	2728	2320	1990	1728	1519	1353	1218	1109	1019	944	880	826	780	740	705	675	647	623	602
5000	115	3671	3115	2622	2217	1893	1639	1438	1279	1152	1048	964	893	834	783	740	703	670	642	617	594	574
5000	120	3587	3017	2521	2119	1803	1557	1364	1213	1092	994	914	847	792	745	704	670	639	613	589	569	550
5000	125	3504	2921	2424	2027	1719	1481	1296	1152	1037	944	869	806	754	710	672	640	611	587	565	545	528
5000	130	3422	2829	2331	1940	1640	1410	1234	1096	987	899	828	769	720	679	643	613	586	563	543	525	509
5000	135	3341	2739	2243	1859	1567	1345	1176	1045	941	858	791	736	689	650	617	589	564	542	523	506	491
5000	140	3261	2652	2159	1782	1498	1285	1123	998	899	821	757	705	661	625	594	567	544	523	505	489	475
5000	145	3183	2568	2079	1710	1435	1229	1074	955	861	787	727	677	636	602	572	547	525	506	489	474	461
5000	150	3105	2487	2003	1642	1375	1178	1029	915	826	755	698	652	613	580	553	529	508	490	474	460	448
5000	155	3029	2409	1931	1578	1320	1130	987	878	794	727	673	628	592	561	535	512	493	476	461	448	436
5000	160	2955	2334	1862	1518	1268	1085	948	845	764	700	649	607	572	543	518	497	479	463	449	436	425
5000	165	2883	2262	1797	1461	1219	1043	913	813	737	676	627	587	554	527	503	483	466	451	438	426	415
5000	170	2812	2192	1735	1408	1174	1005	879	784	711	653	607	569	538	512	490	471	454	440	427	416	406
5000	175	2743	2125	1676	1357	1131	968	848	758	688	633	588	552	523	498	477	459	443	430	418	407	398
5000	180	2675	2061	1620	1310	1091	935	819	733	666	613	571	537	509	485	465	448	433	420	409	399	390
5000	185	2609	2000	1566	1265	1054	903	792	709	645	595	555	523	496	473	454	438	424	412	401	391	383
5000	190	2546	1941	1516	1223	1019	874	767	688	627	579	540	509	484	462	444	429	415	404	393	384	376
5000	195	2483	1884	1468	1183	986	846	744	667	609	563	527	497	473	452	435	420	407	396	386	378	370
5000	200	2423	1830	1422	1146	955	820	722	649	593	549	514	486	462	443	426	412	400	389	380	372	365

Note: N_0 = initial density (defined as stems/ha for trees taller than 1.3 m at bhage zero); SI = site index (top height at 50 years bhage); Top height = average height (m) of the 100 largest DBH trees per ha; Stand density values at bhage 50 are stand density factors (SDF).

Table 4. Lodgepole pine stand density projection table (Part 4 of 7).

N_0 /ha	Bhage /yrs	Site index (SI, m) at 50 years bhage																				
		5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
		stand density (stems/ha)																				
7000	5	6993	6988	6981	6973	6964	6953	6942	6929	6916	6902	6888	6872	6857	6841	6824	6807	6790	6773	6755	6737	6719
7000	10	6974	6957	6934	6906	6875	6840	6802	6761	6718	6673	6627	6579	6531	6482	6432	6382	6331	6280	6230	6179	6128
7000	15	6945	6907	6859	6802	6737	6665	6588	6507	6423	6337	6250	6161	6072	5984	5895	5808	5721	5635	5551	5468	5386
7000	20	6904	6839	6758	6662	6554	6438	6315	6188	6059	5928	5798	5669	5542	5417	5295	5175	5059	4947	4838	4732	4629
7000	25	6853	6754	6632	6491	6335	6170	5999	5825	5652	5480	5312	5149	4991	4839	4693	4553	4419	4291	4168	4052	3940
7000	30	6791	6654	6486	6295	6088	5873	5655	5439	5227	5022	4825	4638	4460	4291	4132	3981	3839	3706	3580	3461	3349
7000	35	6720	6538	6321	6078	5821	5559	5299	5046	4804	4575	4359	4157	3969	3793	3629	3477	3335	3203	3080	2966	2859
7000	40	6639	6410	6140	5846	5541	5237	4942	4662	4399	4154	3928	3720	3529	3353	3191	3043	2906	2781	2665	2557	2458
7000	45	6549	6271	5949	5604	5255	4916	4594	4294	4018	3767	3538	3330	3141	2971	2816	2674	2546	2428	2321	2222	2131
7000	50	6452	6122	5748	5357	4971	4603	4261	3950	3668	3416	3189	2986	2805	2642	2496	2363	2244	2136	2037	1947	1865
7000	55	6348	5965	5542	5109	4691	4302	3948	3631	3350	3101	2881	2686	2514	2361	2224	2101	1992	1893	1803	1722	1647
7000	60	6237	5803	5333	4863	4420	4016	3657	3340	3063	2821	2610	2425	2263	2120	1993	1880	1780	1690	1608	1535	1468
7000	65	6122	5636	5123	4622	4160	3748	3388	3075	2806	2574	2373	2199	2047	1914	1797	1693	1601	1519	1446	1379	1319
7000	70	6001	5467	4915	4389	3914	3498	3141	2836	2576	2354	2165	2001	1860	1737	1629	1534	1450	1376	1309	1249	1195
7000	75	5877	5296	4709	4164	3681	3266	2915	2620	2371	2161	1982	1830	1698	1585	1486	1399	1322	1254	1193	1139	1090
7000	80	5750	5125	4509	3948	3463	3052	2710	2426	2189	1990	1822	1680	1558	1453	1362	1282	1212	1150	1095	1045	1001
7000	85	5620	4955	4314	3744	3258	2855	2524	2251	2026	1838	1682	1549	1436	1339	1255	1182	1117	1061	1010	965	925
7000	90	5489	4787	4126	3550	3068	2675	2355	2094	1880	1704	1557	1434	1329	1239	1162	1094	1036	984	937	896	859
7000	95	5357	4622	3945	3366	2892	2509	2201	1953	1751	1585	1448	1332	1235	1152	1081	1019	964	917	874	837	803
7000	100	5224	4460	3771	3194	2728	2357	2061	1825	1634	1479	1350	1243	1152	1075	1009	952	902	858	819	785	754
7000	105	5092	4302	3605	3032	2576	2217	1935	1710	1530	1384	1263	1163	1079	1008	946	893	847	807	771	739	711
7000	110	4961	4148	3446	2880	2435	2089	1819	1606	1436	1299	1186	1093	1014	948	891	842	799	762	728	699	673
7000	115	4830	3999	3296	2737	2305	1972	1714	1512	1352	1222	1117	1029	956	894	841	796	756	722	691	664	639
7000	120	4702	3855	3153	2604	2184	1865	1619	1427	1275	1154	1055	973	904	847	797	755	718	686	657	632	610
7000	125	4575	3716	3017	2479	2073	1766	1531	1350	1206	1092	999	922	858	804	758	718	684	654	628	604	583
7000	130	4450	3582	2888	2362	1970	1675	1452	1279	1144	1036	948	876	816	766	723	686	654	626	601	579	560
7000	135	4327	3453	2767	2253	1874	1592	1378	1215	1087	985	902	835	778	731	691	656	626	600	577	557	538
7000	140	4207	3329	2652	2151	1785	1515	1311	1156	1035	938	861	797	744	700	662	629	601	577	555	536	519
7000	145	4090	3210	2543	2056	1703	1444	1250	1102	987	896	823	763	713	671	636	605	579	556	536	518	502
7000	150	3976	3097	2440	1967	1626	1378	1193	1053	944	858	788	732	685	645	612	583	558	537	518	501	486
7000	155	3864	2988	2343	1883	1555	1317	1141	1007	904	822	757	703	659	622	590	563	540	520	502	486	472
7000	160	3756	2884	2251	1805	1489	1261	1093	965	867	790	728	677	635	600	570	545	523	504	487	472	459
7000	165	3650	2784	2165	1732	1427	1209	1048	927	833	760	701	653	614	580	552	528	507	489	473	459	447
7000	170	3548	2689	2083	1663	1370	1160	1007	891	802	733	677	631	594	562	536	513	493	476	461	448	436
7000	175	3449	2598	2006	1599	1316	1115	968	858	774	707	654	611	575	545	520	499	480	464	450	437	426
7000	180	3353	2511	1932	1538	1266	1073	933	828	747	684	633	592	558	530	506	486	468	453	439	427	417
7000	185	3260	2429	1863	1482	1219	1034	900	799	722	662	614	575	543	516	493	474	457	442	429	418	408
7000	190	3169	2350	1798	1428	1176	998	869	773	699	642	596	559	528	503	481	462	446	433	420	410	400
7000	195	3082	2274	1736	1378	1134	964	840	748	678	623	579	544	515	490	470	452	437	424	412	402	393
7000	200	2998	2202	1677	1331	1096	932	813	725	658	606	564	530	502	479	459	442	428	415	404	395	386
7500	5	7492	7486	7479	7470	7460	7448	7436	7422	7407	7392	7376	7359	7342	7324	7306	7287	7268	7249	7229	7209	7189
7500	10	7472	7452	7427	7396	7361	7323	7280	7235	7188	7138	7087	7035	6981	6927	6872	6817	6761	6705	6649	6593	6537
7500	15	7439	7397	7343	7280	7208	7129	7044	6955	6863	6768	6671	6574	6476	6378	6281	6185	6090	5996	5903	5812	5723
7500	20	7394	7322	7231	7125	7007	6878	6743	6603	6461	6317	6175	6033	5894	5757	5623	5493	5367	5244	5125	5010	4899
7500	25	7337	7227	7092	6936	6765	6583	6394	6204	6014	5826	5643	5465	5293	5127	4968	4817	4671	4533	4400	4274	4154
7500	30	7268	7116	6930	6719	6492	6256	6017	5780	5549	5326	5112	4908	4715	4532	4360	4198	4045	3901	3766	3639	3519
7500	35	7189	6988	6747	6480	6198	5910	5627	5351	5089	4840	4606	4388	4184	3995	3819	3655	3504	3362	3231	3109	2994
7500	40	7099	6846	6549	6225	5890	5558	5237	4933	4648	4384	4140	3916	3711	3522	3349	3191	3045	2911	2787	2673	2568
7500	45	7000	6692	6337	5959	5578	5208	4859	4535	4237	3966	3720	3497	3296	3113	2948	2798	2661	2536	2422	2318	2221
7500	50	6892	6527	6116	5688	5267	4868	4498	4162	3860	3589	3346	3130	2936	2763	2607	2467	2341	2226	2122	2027	1940
7500	55	6776	6355	5890	5417	4963	4542	4160	3820	3518	3252	3017	2810	2627	2464	2319	2190	2073	1969	1874	1788	1710
7500	60	6654	6176	5661	5149	4669	4233	3846	3507	3211	2953	2729	2533	2360	2209	2075	1956	1850	1755	1669	1592	1522
7500	65	6526	5993	5431	4887	4388	3944	3557	3224	2936	2690	2476	2292	2131	1991	1868	1759	1662	1575	1498	1428	1365
7500	70	6393	5807	5204	4634	4121	3675	3293	2968	2692	2457	2256	2083	1934	1805	1691	1591	1503	1425	1354	1291	1235
7500	75	6256	5619	4981	4390	3871	3427	3052	2738	2474	2252	2063	1902	1764	1644	1540	1449	1368	1297	1233	1176	1125
7500	80	6116	5432	4763	4158	3636	3198	2834	2532	2281	2071	1894	1744	1616	1506	1410	1326	1253	1188	1130	1078	1032
7500	85	5973	5247	4552	3937	3417	2988	2635	2346	2108	1911	1746	1606	1488	1386	1298	1221	1154	1094	1041	994	952
7500	90	5829	5064	4348	3728	3214	2795	2456	2180	1955	1769	1615	1485	1375	1281	1200	1130	1068	1014	965	922	884
7500	95	5685	4884	4152	3532	3025	2619	2293	2031	1818	1644	1499	1379	1277	1190	1115	1050	993	944	899	860	825
7500	100	5540	4708	3965	3347	2851	2457	2145	1896	1695	1532	1397	1285	1190	1110	1040	981	928	882	842	806	774
7500	105	5395	4537	3786	3174	2689	2309	2011	1775	1586	1432	1306	1201	1113	1039	975	919	871	829	792	758	729
7500	110	5251	4370	3616	3011	2540	2174	1890	1666	1487	1343	1225	1127	1045	976	917	865	821	782	747	717	689
7500	115	5109	4209	3455	2859	2402	2050	1779	1567	1398	1263	1153	1061	985	920	865	817	776	740	708	680	654
7500	120	4969	4054	3301	2718	2274	1937	1678	1477	1318	1191	1087	1002	931	870	819	775	736	703	673	647	624
7500	125	4831	3904	3156	2585	2156	1833	1586	1396	1246	1126	1029	949	882	826	778	737	701	670	642	618	596
7500	130	4695	3760	3019	2461	2047	1737	1503	1322	1180	1067	976	901	838	786	741	703	669	640	614	592	571
7500	135	4562	3621	2890	2346	1946	1649	1426	1254	1121	1014	928	858	799	750	708	672	641	613	589	568	549
7500	140	4432	3489	2767	2238	1852	1568	1355	1193	1066	966	885	818	763	717	678	644	615	589	567	547	529
7500	145	4305	3362	2652	2137	1766	1494	1291	1137	1017	922	845	783	731	687	650	619	591	567	546	528	511
7500	150	4182	3240	2543	2043	1685	1425	1231	1085	971	881	809	750	701	660	626	596	570	548	528	510	495
7500	155	4062	3124	2440	1955	1610	1361	1177	1037	930	845	776	721	675	636	603	575	551	530	511	495	480
7500	160	3945	3013	2343	1873	1541	1302	1126	994	891	811	746	693	650	613	583	556	533	513	496	480	466
7500	165	3831	2907	2251	1795	1476	1247	1080	953	856	780	718	669	627	593	564	539	517	498	482	467	454
7500	170	3722	2805	2164	1723	1416	1197	1036	916	824	751	693	646	607	574	546	523	502	484	469	455	443
7500	175	3615	2709	2083	1655	1360	1150	996	882	794	725	669	625	588	557	530	508	489	472	457	444	432
7500	180	3512	2617	2006	1592	1307	1106	959	850	766	700	648	605	570	540	516	494	476	460	446	434	423
7500	185	3412	2529	1933	1532	1258	1065	925	820	740	678	628	587	554	526	502	482	464	449	436	424	414
7500	190	3316	2445	1864	1476	1212	1027	893	793	716	657	609	570	538	512	489	470	454	439	427	415	406
7500	195	3223	2365	1799	1424	1169	991	863	767	694	637	592	555	524	499	478	459	444	430	418	407	398
7500	200	3133	2289	1737	1374	1129	958	835	743	673	619	575	540	511	487	467	449	434	421	410	400	391

Note: N_0 = initial density (defined as stems/ha for trees taller than 1.3 m at bhage zero); SI = site index (top height at 50 years bhage); Top height = average height (m) of the 100 largest DBH trees per ha; Stand density values at bhage 50 are stand density factors (SDF).

Table 4. Lodgepole pine stand density projection table (Part 5 of 7).

N_0 /ha	Bhage /yrs	Site index (SI, m) at 50 years bhage																				
		5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
		stand density (stems/ha)																				
10000	5	9988	9979	9968	9955	9939	9922	9903	9882	9860	9837	9812	9787	9761	9734	9706	9678	9649	9619	9590	9560	9529
10000	10	9957	9927	9889	9843	9790	9732	9668	9600	9528	9454	9377	9298	9217	9136	9053	8970	8887	8804	8720	8637	8554
10000	15	9907	9843	9762	9666	9558	9439	9311	9178	9040	8898	8755	8610	8466	8322	8179	8038	7899	7762	7627	7495	7366
10000	20	9837	9728	9591	9431	9253	9061	8860	8653	8442	8232	8023	7817	7615	7417	7225	7039	6859	6685	6517	6355	6199
10000	25	9750	9584	9380	9146	8890	8620	8343	8064	7787	7516	7253	6999	6755	6521	6298	6086	5884	5692	5510	5337	5173
10000	30	9645	9413	9134	8819	8483	8137	7789	7448	7117	6800	6499	6214	5945	5693	5457	5235	5028	4834	4652	4481	4321
10000	35	9523	9219	8859	8463	8049	7633	7225	6835	6464	6117	5794	5494	5217	4960	4723	4505	4303	4116	3943	3782	3633
10000	40	9386	9004	8561	8085	7600	7125	6671	6245	5850	5488	5156	4854	4579	4328	4099	3891	3700	3526	3366	3219	3083
10000	45	9234	8772	8247	7696	7150	6627	6139	5692	5286	4919	4590	4294	4029	3790	3574	3380	3204	3044	2898	2765	2643
10000	50	9070	8525	7922	7304	6706	6148	5639	5182	4775	4414	4094	3811	3559	3335	3135	2956	2795	2650	2518	2399	2290
10000	55	8895	8268	7591	6915	6277	5695	5177	4719	4319	3969	3663	3395	3160	2952	2768	2604	2458	2326	2208	2101	2004
10000	60	8711	8004	7258	6534	5867	5272	4752	4302	3914	3579	3290	3039	2820	2628	2460	2310	2178	2060	1954	1858	1772
10000	65	8519	7734	6929	6166	5479	4881	4367	3929	3556	3238	2966	2733	2530	2354	2200	2065	1945	1838	1743	1657	1580
10000	70	8320	7463	6605	5813	5116	4520	4017	3595	3240	2940	2686	2469	2283	2121	1981	1858	1749	1653	1567	1490	1421
10000	75	8116	7192	6290	5477	4777	4190	3702	3298	2961	2680	2443	2242	2071	1923	1794	1682	1584	1497	1419	1350	1288
10000	80	7909	6923	5985	5159	4463	3889	3418	3033	2715	2452	2232	2046	1888	1752	1635	1533	1443	1364	1294	1231	1175
10000	85	7699	6658	5692	4861	4173	3615	3163	2797	2498	2252	2047	1875	1730	1605	1498	1404	1323	1251	1187	1131	1080
10000	90	7488	6399	5412	4580	3905	3365	2934	2587	2306	2076	1886	1726	1592	1477	1379	1294	1219	1154	1096	1044	998
10000	95	7278	6146	5145	4319	3659	3138	2727	2399	2135	1920	1743	1596	1472	1366	1276	1198	1129	1069	1016	969	927
10000	100	7068	5900	4891	4074	3433	2932	2541	2231	1983	1783	1618	1481	1367	1269	1186	1114	1051	996	948	905	866
10000	105	6861	5663	4651	3847	3225	2745	2373	2080	1848	1660	1507	1380	1274	1184	1107	1040	983	932	887	848	813
10000	110	6655	5434	4423	3635	3033	2574	2221	1945	1727	1551	1408	1290	1192	1108	1037	976	922	876	835	798	766
10000	115	6453	5213	4209	3439	2858	2419	2083	1823	1618	1454	1320	1210	1119	1041	975	918	869	826	788	754	724
10000	120	6255	5002	4007	3256	2696	2277	1959	1713	1520	1367	1242	1139	1054	982	920	867	822	782	747	715	688
10000	125	6061	4800	3817	3087	2548	2148	1846	1614	1432	1288	1171	1075	995	928	871	822	780	742	710	681	655
10000	130	5872	4606	3639	2929	2411	2029	1743	1524	1353	1217	1107	1018	943	880	827	781	742	707	677	650	626
10000	135	5688	4422	3471	2782	2285	1921	1649	1442	1281	1153	1050	966	896	837	788	745	708	676	647	622	600
10000	140	5508	4246	3313	2646	2169	1821	1563	1367	1215	1095	998	919	853	798	752	712	677	647	621	597	576
10000	145	5334	4078	3165	2520	2061	1730	1484	1299	1155	1042	951	876	815	763	719	682	650	621	597	575	555
10000	150	5166	3918	3026	2402	1962	1645	1412	1236	1101	994	908	838	780	731	690	655	624	598	575	554	536
10000	155	5002	3766	2895	2292	1870	1568	1346	1179	1051	949	868	802	748	702	663	630	602	577	555	536	518
10000	160	4844	3622	2772	2190	1785	1496	1285	1127	1005	909	832	770	719	676	639	608	581	557	537	519	502
10000	165	4692	3485	2657	2094	1706	1430	1229	1078	963	872	800	741	692	651	617	587	562	540	520	503	488
10000	170	4545	3354	2548	2005	1632	1369	1177	1034	924	838	769	713	667	629	596	568	544	523	505	489	474
10000	175	4403	3231	2446	1922	1564	1312	1129	993	888	807	741	688	645	608	577	551	528	508	491	476	462
10000	180	4266	3113	2350	1844	1500	1259	1084	954	855	777	716	665	624	589	560	535	514	495	478	464	451
10000	185	4134	3001	2259	1771	1440	1210	1043	919	824	751	692	644	605	572	544	520	500	482	466	453	440
10000	190	4008	2895	2174	1702	1385	1164	1005	886	796	726	670	624	587	556	529	507	487	470	456	442	431
10000	195	3886	2794	2093	1638	1333	1121	969	856	770	703	649	606	570	541	515	494	476	459	445	433	422
10000	200	3768	2697	2017	1578	1285	1081	935	827	745	681	630	589	555	527	503	482	465	449	436	424	414
15000	5	14979	14964	14944	14921	14894	14864	14830	14794	14755	14714	14670	14625	14579	14531	14482	14431	14380	14328	14275	14222	14167
15000	10	14924	14871	14804	14724	14631	14529	14417	14298	14172	14042	13907	13769	13628	13486	13342	13197	13053	12908	12763	12619	12476
15000	15	14834	14722	14580	14412	14222	14015	13793	13562	13322	13078	12831	12584	12337	12092	11850	11611	11377	11148	10923	10704	10490
15000	20	14711	14517	14277	13998	13689	13357	13011	12657	12300	11945	11593	11249	10913	10588	10273	9969	9676	9396	9126	8868	8621
15000	25	14555	14262	13905	13499	13059	12598	12129	11661	11201	10754	10323	9910	9517	9143	8789	8454	8138	7839	7558	7292	7042
15000	30	14367	13960	13474	12934	12362	11780	11202	10641	10103	9592	9111	8661	8240	7848	7484	7145	6830	6538	6265	6011	5775
15000	35	14150	13618	12997	12322	11628	10940	10275	9646	9057	8511	8008	7546	7122	6734	6379	6053	5755	5480	5228	4995	4780
15000	40	13906	13242	12484	11683	10881	10108	9380	8708	8094	7536	7032	6577	6167	5796	5461	5157	4882	4631	4403	4194	4002
15000	45	13639	12838	11948	11033	10142	9306	8539	7847	7228	6676	6185	5749	5361	5014	4705	4427	4177	3951	3747	3561	3392
15000	50	13350	12414	11399	10386	9427	8549	7764	7069	6459	5925	5457	5047	4685	4366	4083	3831	3606	3404	3223	3058	2909
15000	55	13044	11974	10848	9753	8745	7845	7057	6374	5784	5275	4835	4452	4119	3827	3570	3343	3142	2962	2800	2655	2524
15000	60	12723	11526	10301	9143	8104	7198	6420	5758	5194	4714	4303	3950	3644	3379	3146	2942	2761	2600	2457	2328	2212
15000	65	12390	11074	9764	8561	7506	6607	5849	5214	4680	4230	3849	3524	3244	3003	2793	2609	2447	2303	2175	2061	1958
15000	70	12049	10624	9244	8010	6953	6070	5339	4734	4232	3812	3460	3161	2906	2687	2497	2331	2185	2056	1942	1840	1749
15000	75	11702	10178	8744	7492	6445	5585	4884	4311	3841	3451	3126	2851	2618	2419	2247	2097	1965	1850	1747	1656	1574
15000	80	11351	9740	8265	7009	5979	5148	4479	3939	3499	3137	2837	2585	2372	2191	2034	1898	1780	1676	1583	1501	1428
15000	85	11000	9314	7810	6560	5554	4754	4119	3610	3199	2864	2587	2356	2161	1995	1853	1729	1622	1527	1444	1370	1304
15000	90	10649	8900	7380	6143	5165	4399	3797	3320	2936	2625	2370	2157	1978	1826	1696	1584	1486	1401	1325	1258	1198
15000	95	10301	8500	6974	5757	4811	4079	3510	3062	2705	2416	2179	1984	1819	1680	1561	1459	1369	1291	1222	1161	1107
15000	100	9958	8116	6592	5400	4489	3791	3253	2833	2500	2231	2013	1832	1681	1553	1444	1350	1268	1196	1134	1078	1028
15000	105	9620	7748	6234	5072	4195	3531	3023	2629	2318	2068	1866	1698	1559	1441	1341	1254	1179	1114	1056	1005	960
15000	110	9290	7396	5898	4768	3926	3296	2817	2447	2156	1924	1735	1581	1451	1343	1250	1170	1101	1041	988	941	900
15000	115	8967	7061	5584	4488	3682	3083	2631	2283	2012	1795	1620	1476	1356	1256	1170	1097	1033	977	928	885	847
15000	120	8653	6742	5291	4231	3458	2890	2463	2137	1882	1680	1517	1383	1272	1178	1099	1031	972	921	876	836	800
15000	125	8348	6439	5017	3992	3254	2714	2311	2005	1766	1577	1425	1300	1196	1110	1036	973	918	870	829	792	759
15000	130	8052	6152	4762	3773	3067	2554	2174	1885	1661	1484	1342	1225	1129	1048	979	921	870	825	787	752	722
15000	135	7766	5879	4523	3570	2895	2409	2049	1777	1567	1401	1267	1158	1068	993	929	874	826	785	749	717	688
15000	140	7490	5621	4300	3382	2738	2276	1935	1679	1481	1325	1200	1098	1013	943	883	832	787	749	715	685	659
15000	145	7224	5378	4092	3209	2593	2154	1832	1589	1403	1256	1139	1043	964	898	842	794	752	716	684	657	632
15000	150	6968	5147	3897	3048	2460	2042	1737	1508	1332	1194	1083	993	919	857	804	759	720	686	657	631	607
15000	155	6722	4929	3716	2899	2337	1939	1650	1433	1267	1137	1033	948	878	819	770	728	691	659	632	607	585
15000	160	6485	4723	3546	2760	2223	1845	1570	1365	1208	1085	986	906	841	785	739	699	665	635	609	586	565
15000	165	6258	4528	3387	2631	2118	1758	1497	1302	1153	1037	944	869	806	754	711	673	641	613	588	566	547
15000	170	6040	4344	3238	2512	2020	1677	1429	1244	1103	993	905	834	775	726	684	649	619	592	569	548	530
15000	175	5832	4170	3099	2400	1930	1603	1366	1191	1057	953	869	802	746	700	661	627	598	573	551	532	515
15000	180	5632	4005	2968	2296	1846	1533	1309	1142	1015	915	836	772	720	676	639	607	580	556	535	517	500
15000	185	5440	3850	2846	2199	1768	1469	1255	1096	975	881	806	745	695	654	618	588	562	540	520	503	487
15000	190	5257	3702	2730	2109	1695	1410	1205	1054	939	849	778	720	673	633	600	571	546	525	506	490	475
15000	195	5081	3563	2622	2024	1628	1354	1159	1015	905	820	752	697	652	614	582	555	532	511	494	478	464
15000	200	4913	3431	2520	1944	1564	1303	1116	978	874	792	728	675	632	596	566	540	518	499	482	467	454

Note: N_0 = initial density (defined as stems/ha for trees taller than 1.3 m at bhage zero); SI = site index (top height at 50 years bhage); Top height = average height (m) of the 100 largest DBH trees per ha; Stand density values at bhage 50 are stand density factors (SDF).

Table 4. Lodgepole pine stand density projection table (Part 6 of 7).

N_0 /ha	Bhage /yrs	Site index (SI, m) at 50 years bhage																				
		5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
		stand density (stems/ha)																				
20000	5	19969	19947	19919	19884	19845	19800	19750	19697	19639	19578	19514	19447	19378	19307	19234	19159	19082	19004	18925	18845	18765
20000	10	19887	19810	19711	19593	19457	19306	19142	18966	18781	18589	18390	18187	17980	17770	17559	17347	17134	16922	16710	16500	16292
20000	15	19755	19589	19380	19133	18854	18550	18226	17887	17538	17182	16823	16464	16107	15753	15404	15062	14726	14399	14079	13768	13465
20000	20	19572	19286	18932	18523	18071	17588	17086	16574	16060	15549	15047	14556	14080	13620	13177	12751	12343	11953	11580	11223	10883
20000	25	19339	18908	18384	17791	17152	16487	15814	15146	14493	13862	13257	12680	12133	11617	11129	10671	10240	9835	9455	9098	8762
20000	30	19060	18462	17752	16968	16145	15313	14494	13704	12952	12243	11580	10963	10389	9859	9367	8913	8493	8104	7744	7409	7099
20000	35	18738	17958	17054	16083	15093	14121	13192	12318	11508	10762	10080	9457	8890	8373	7903	7474	7082	6724	6396	6094	5817
20000	40	18377	17406	16311	15167	14036	12956	11951	11032	10198	9448	8774	8171	7629	7143	6706	6312	5956	5633	5340	5073	4829
20000	45	17982	16817	15539	14244	13000	11846	10801	9866	9036	8304	7657	7086	6581	6132	5733	5377	5057	4770	4511	4277	4063
20000	50	17557	16201	14756	13334	12008	10811	9752	8825	8019	7318	6709	6177	5712	5303	4942	4622	4338	4083	3855	3649	3463
20000	55	17108	15568	13974	12453	11073	9859	8808	7907	7135	6474	5906	5416	4991	4621	4296	4010	3757	3532	3330	3150	2987
20000	60	16640	14926	13206	11611	10202	8992	7965	7100	6370	5752	5227	4778	4392	4057	3765	3510	3284	3085	2907	2748	2605
20000	65	16157	14283	12459	10814	9398	8208	7217	6394	5709	5135	4652	4241	3890	3588	3326	3097	2897	2719	2562	2421	2295
20000	70	15663	13647	11740	10068	8662	7503	6555	5777	5137	4606	4162	3788	3469	3196	2960	2755	2575	2417	2277	2152	2040
20000	75	15164	13022	11054	9373	7990	6871	5969	5238	4642	4151	3744	3402	3113	2865	2653	2468	2307	2165	2040	1928	1829
20000	80	14663	12412	10403	8728	7379	6305	5450	4765	4211	3759	3385	3072	2809	2585	2393	2226	2081	1953	1841	1741	1652
20000	85	14163	11822	9788	8133	6825	5799	4992	4351	3836	3419	3075	2789	2549	2345	2171	2020	1889	1774	1673	1583	1502
20000	90	13667	11253	9211	7586	6323	5345	4585	3986	3509	3123	2807	2545	2325	2140	1981	1844	1725	1621	1529	1448	1375
20000	95	13178	10708	8671	7082	5867	4939	4224	3664	3221	2864	2573	2333	2132	1962	1817	1692	1584	1489	1406	1332	1266
20000	100	12698	10187	8165	6619	5455	4575	3902	3379	2967	2637	2369	2147	1963	1807	1674	1560	1461	1375	1299	1232	1172
20000	105	12229	9690	7694	6195	5081	4247	3615	3127	2743	2437	2189	1985	1815	1672	1550	1445	1355	1275	1206	1144	1090
20000	110	11771	9219	7256	5806	4741	3953	3358	2901	2544	2260	2030	1842	1685	1553	1441	1344	1261	1189	1125	1068	1018
20000	115	11327	8772	6848	5448	4433	3687	3128	2700	2367	2103	1890	1715	1570	1448	1344	1256	1179	1112	1053	1001	955
20000	120	10897	8350	6468	5120	4152	3446	2920	2520	2209	1963	1764	1602	1468	1355	1259	1177	1106	1044	990	942	900
20000	125	10482	7950	6116	4819	3897	3229	2734	2358	2067	1838	1653	1502	1377	1272	1183	1107	1041	984	934	890	850
20000	130	10082	7573	5788	4542	3663	3031	2565	2212	1940	1725	1553	1412	1296	1198	1115	1045	984	930	884	843	806
20000	135	9696	7218	5483	4287	3450	2852	2412	2080	1825	1624	1462	1331	1222	1132	1055	989	932	882	839	801	767
20000	140	9326	6883	5200	4052	3255	2688	2273	1961	1721	1532	1381	1258	1157	1072	1000	938	885	839	799	763	731
20000	145	8971	6567	4936	3835	3076	2538	2146	1852	1626	1449	1308	1192	1097	1018	950	893	843	800	762	729	700
20000	150	8631	6270	4691	3634	2911	2401	2030	1753	1541	1374	1241	1133	1043	969	906	852	805	765	730	698	671
20000	155	8305	5990	4462	3449	2760	2276	1925	1663	1462	1305	1180	1078	994	924	865	814	771	733	700	670	645
20000	160	7993	5726	4249	3278	2620	2160	1828	1580	1391	1243	1125	1029	950	884	828	780	739	704	673	645	621
20000	165	7695	5478	4050	3119	2492	2054	1739	1504	1325	1185	1074	983	909	847	794	749	711	677	648	622	599
20000	170	7411	5244	3865	2971	2373	1956	1657	1434	1265	1133	1027	942	871	813	763	721	685	653	625	601	579
20000	175	7139	5024	3691	2834	2262	1866	1581	1370	1209	1084	984	904	837	782	735	695	660	630	604	581	561
20000	180	6879	4816	3529	2707	2160	1782	1511	1311	1158	1040	945	868	805	753	709	671	638	610	585	563	544
20000	185	6631	4620	3377	2588	2065	1705	1447	1256	1111	998	909	836	776	726	684	649	618	591	568	547	529
20000	190	6395	4435	3235	2477	1976	1632	1387	1205	1067	960	875	806	749	702	662	628	599	573	551	532	514
20000	195	6169	4260	3102	2373	1894	1565	1331	1158	1027	925	844	778	724	679	642	609	581	557	536	518	501
20000	200	5954	4095	2976	2276	1817	1503	1279	1114	989	892	815	752	701	658	622	592	565	542	522	504	489
30000	5	29947	29910	29863	29805	29738	29662	29577	29485	29387	29282	29172	29057	28937	28814	28687	28557	28424	28289	28151	28012	27871
30000	10	29809	29677	29509	29309	29078	28821	28541	28242	27927	27599	27260	26914	26561	26204	25845	25484	25124	24764	24407	24052	23701
30000	15	29582	29298	28943	28524	28052	27537	26990	26418	25831	25234	24634	24034	23440	22854	22278	21715	21165	20630	20110	19607	19119
30000	20	29266	28779	28179	27488	26727	25918	25080	24230	23381	22542	21721	20924	20154	19414	18705	18029	17384	16770	16186	15632	15106
30000	25	28866	28132	27247	26252	25187	24087	22982	21894	20837	19824	18859	17946	17087	16281	15526	14820	14160	13544	12969	12431	11929
30000	30	28386	27371	26178	24873	23519	22163	20842	19579	18388	17276	16244	15292	14415	13608	12867	12186	11561	10985	10455	9965	9514
30000	35	27833	26516	25009	23410	21802	20242	18768	17399	16142	14998	13960	13021	12172	11405	10712	10083	9513	8995	8522	8091	7696
30000	40	27216	25585	23773	21912	20099	18394	16829	15414	14147	13017	12013	11120	10326	9619	8986	8420	7911	7453	7038	6663	6321
30000	45	26542	24598	22505	20422	18457	16663	15061	13648	12409	11325	10377	9547	8818	8176	7608	7104	6654	6252	5891	5565	5270
30000	50	25823	23575	21230	18973	16906	15073	13476	12097	10911	9890	9011	8249	7587	7010	6503	6056	5660	5308	4993	4711	4456
30000	55	25066	22532	19973	17587	15466	13633	12071	10748	9629	8679	7870	7177	6579	6062	5611	5215	4867	4558	4283	4037	3816
30000	60	24281	21485	18751	16279	14142	12339	10833	9579	8533	7656	6916	6287	5750	5287	4885	4535	4227	3956	3714	3499	3307
30000	65	23478	20446	17577	15058	12936	11184	9747	8568	7597	6790	6115	5546	5062	4647	4289	3978	3706	3466	3254	3065	2895
30000	70	22663	19427	16459	13926	11843	10157	8796	7694	6794	6054	5440	4924	4488	4116	3796	3519	3276	3064	2876	2709	2560
30000	75	21844	18435	15403	12884	10857	9245	7963	6936	6105	5427	4867	4400	4006	3671	3384	3136	2920	2730	2563	2415	2282
30000	80	21028	17478	14412	11928	9969	8436	7232	6277	5511	4889	4379	3954	3598	3296	3037	2814	2621	2451	2301	2169	2051
30000	85	20221	16559	13486	11054	9171	7719	6590	5703	4997	4426	3960	3574	3250	2977	2743	2542	2368	2215	2081	1962	1856
30000	90	19426	15682	12624	10256	8454	7081	6025	5202	4549	4025	3598	3246	2952	2704	2492	2310	2152	2014	1893	1786	1691
30000	95	18648	14848	11823	9528	7808	6514	5527	4762	4159	3677	3285	2963	2694	2468	2276	2110	1967	1842	1732	1635	1549
30000	100	17891	14058	11081	8865	7228	6008	5085	4374	3817	3372	3012	2717	2471	2264	2088	1938	1807	1693	1594	1505	1427
30000	105	17155	13312	10395	8261	6705	5556	4693	4032	3515	3105	2773	2501	2276	2086	1925	1787	1668	1564	1473	1393	1321
30000	110	16444	12608	9760	7710	6233	5151	4344	3728	3249	2869	2563	2312	2105	1930	1782	1656	1547	1451	1368	1294	1229
30000	115	15759	11946	9174	7208	5806	4788	4032	3458	3012	2660	2377	2145	1954	1793	1657	1540	1440	1352	1275	1208	1148
30000	120	15100	11324	8632	6749	5420	4461	3752	3216	2801	2474	2212	1997	1820	1671	1546	1438	1345	1265	1194	1131	1076
30000	125	14468	10741	8132	6330	5069	4166	3501	3000	2613	2309	2064	1865	1701	1563	1447	1347	1262	1187	1122	1064	1013
30000	130	13862	10193	7669	5947	4751	3899	3275	2805	2444	2160	1933	1748	1595	1467	1359	1267	1187	1118	1057	1004	956
30000	135	13284	9680	7241	5595	4461	3657	3070	2630	2292	2027	1815	1642	1500	1381	1280	1194	1120	1056	999	950	906
30000	140	12731	9200	6845	5273	4196	3437	2885	2472	2155	1907	1708	1547	1414	1303	1209	1129	1060	1000	948	901	860
30000	145	12204	8749	6479	4976	3954	3237	2716	2328	2031	1798	1612	1461	1337	1233	1145	1071	1006	950	901	858	820
30000	150	11702	8327	6139	4703	3733	3054	2563	2197	1918	1699	1525	1383	1267	1170	1088	1017	957	905	859	819	783
30000	155	11224	7932	5823	4452	3530	2887	2423	2078	1815	1609	1445	1313	1203	1112	1035	969	913	864	821	783	749
30000	160	10769	7561	5531	4220	3343	2733	2295	1969	1721	1527	1373	1248	1145	1060	987	926	872	826	786	750	719
30000	165	10336	7213	5258	4005	3171	2592	2177	1870	1635	1453	1307	1189	1093	1012	944	886	836	792	754	721	691
30000	170	9925	6886	5005	3807	3012	2463	2069	1778	1557	1384	1247	1136	1044	968	904	849	802	761	725	694	666
30000	175	9534	6580	4769	3623	2865	2343	1970	1694	1484	1321	1191	1086	1000	928	867	816	771	732	699	669	643
30000	180	9162	6292	4549	3452	2729	2233	1878	1617	1418	1263	1140	1041	959	891	834	785	743	706	674	646	621
30000	185	8809	6022	4343	3293	2603	2131	1793	1545	1356	1210	1093	999	921	857	803	756	717	682	652	625	602
30000	190	8473	5768	4151	3145	2486	2036	1715	1479	1299	1160	1050	960	887	826	774	730	692	660	631	606	583
30000	195	8154	5528	3972	3007	2378	1948	1642	1417	1247	1114	1009	924	855	797	748	706	670	639	612	588	567
30000	200	7851	5303	3804	2878	2276	1866	1575	1360	1198	1072	972	891	825	770	723	683	649	620	594	571	551

Note: N_0 = initial density (defined as stems/ha for trees taller than 1.3 m at bhage zero); SI = site index (top height at 50 years bhage); Top height = average height (m) of the 100 largest DBH trees per ha; Stand density values at bhage 50 are stand density factors (SDF).

Table 4. Lodgepole pine stand density projection table (Part 7 of 7).

N_0 /ha	Bhage /yrs	Site index (SI, m) at 50 years bhage																				
		5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
		stand density (stems/ha)																				
50000	5	49900	49830	49741	49631	49503	49357	49195	49019	48828	48625	48411	48186	47952	47710	47461	47205	46943	46676	46404	46129	45850
50000	10	49635	49384	49064	48680	48239	47747	47211	46637	46032	45401	44750	44084	43406	42721	42032	41342	40653	39968	39289	38616	37952
50000	15	49196	48653	47974	47175	46276	45297	44258	43175	42065	40941	39814	38693	37586	36498	35435	34399	33394	32420	31479	30571	29696
50000	20	48585	47652	46508	45196	43758	42239	40674	39095	37526	35986	34490	33046	31661	30339	29082	27889	26759	25691	24683	23730	22832
50000	25	47809	46405	44726	42854	40868	38835	36810	34833	32932	31123	29417	27817	26324	24934	23642	22443	21332	20301	19345	18458	17633
50000	30	46879	44946	42700	40273	37784	35322	32952	30712	28624	26694	24922	23301	21822	20475	19246	18127	17105	16171	15317	14534	13815
50000	35	45811	43316	40505	37570	34662	31884	29296	26924	24774	22837	21100	19544	18151	16903	15783	14776	13868	13048	12306	11631	11017
50000	40	44623	41556	38214	34844	31621	28643	25952	23554	21433	19565	17922	16476	15201	14074	13074	12185	11392	10681	10042	9466	8944
50000	45	43336	39709	35890	32175	28741	25666	22965	20616	18583	16827	15307	13987	12838	11833	10951	10172	9483	8869	8320	7828	7384
50000	50	41968	37811	33588	29620	26069	22981	20336	18085	16174	14548	13159	11968	10941	10051	9274	8594	7995	7464	6992	6570	6191
50000	55	40540	35899	31347	27214	23627	20588	18044	15919	14144	12652	11394	10324	9409	8621	7938	7343	6821	6360	5952	5588	5262
50000	60	39071	34000	29198	24978	21417	18473	16056	14070	12433	11073	9936	8977	8162	7464	6862	6339	5883	5481	5126	4810	4528
50000	65	37579	32138	27161	22919	19433	16611	14335	12491	10988	9751	8725	7865	7138	6519	5986	5526	5124	4772	4461	4185	3940
50000	70	36080	30332	25247	21037	17659	14977	12845	11140	9763	8640	7713	6941	6291	5739	5267	4859	4504	4193	3920	3677	3462
50000	75	34588	28596	23462	19325	16077	13542	11554	9981	8721	7699	6862	6167	5584	5091	4669	4306	3991	3716	3474	3259	3069
50000	80	33115	26938	21806	17773	14669	12282	10433	8982	7829	6900	6141	5513	4989	4546	4169	3844	3563	3318	3102	2911	2742
50000	85	31670	25364	20275	16369	13415	11174	9456	8119	7062	6215	5526	4958	4485	4086	3746	3455	3203	2983	2790	2619	2468
50000	90	30261	23877	18865	15100	12298	10198	8602	7369	6400	5626	4998	4483	4054	3693	3387	3124	2897	2699	2525	2372	2236
50000	95	28896	22478	17569	13953	11301	9336	7854	6715	5825	5116	4543	4074	3684	3356	3078	2840	2635	2456	2299	2161	2038
50000	100	27577	21165	16379	12917	10412	8572	7195	6143	5323	4672	4148	3719	3363	3065	2812	2596	2409	2247	2104	1979	1868
50000	105	26310	19936	15287	11980	9615	7894	6613	5639	4883	4284	3803	3410	3085	2812	2581	2384	2213	2065	1936	1822	1720
50000	110	25094	18788	14286	11132	8901	7289	6097	5194	4495	3943	3501	3139	2841	2591	2379	2198	2043	1907	1789	1684	1592
50000	115	23933	17716	13368	10364	8259	6750	5638	4800	4152	3643	3234	2901	2626	2396	2202	2036	1893	1769	1660	1564	1479
50000	120	22825	16718	12525	9666	7681	6266	5229	4449	3848	3376	2998	2690	2437	2225	2045	1892	1761	1646	1546	1458	1380
50000	125	21771	15788	11752	9032	7159	5831	4862	4135	3577	3138	2788	2503	2268	2072	1907	1765	1644	1538	1446	1365	1293
50000	130	20769	14921	11041	8455	6687	5440	4533	3854	3334	2926	2601	2336	2118	1937	1783	1652	1540	1442	1356	1281	1214
50000	135	19818	14115	10388	7929	6259	5086	4236	3602	3116	2736	2433	2187	1984	1815	1673	1551	1447	1356	1276	1207	1145
50000	140	18917	13363	9786	7448	5869	4766	3968	3374	2920	2565	2282	2053	1864	1706	1574	1460	1363	1279	1205	1140	1082
50000	145	18063	12663	9232	7008	5515	4475	3725	3168	2742	2410	2146	1931	1755	1608	1484	1379	1288	1209	1140	1080	1026
50000	150	17254	12011	8720	6604	5191	4210	3504	2981	2582	2270	2023	1822	1657	1520	1404	1305	1220	1146	1082	1025	975
50000	155	16490	11403	8248	6233	4894	3968	3303	2811	2436	2143	1911	1723	1568	1439	1330	1238	1158	1090	1029	976	929
50000	160	15766	10836	7810	5892	4623	3747	3120	2655	2302	2028	1809	1632	1487	1366	1264	1177	1103	1038	981	932	888
50000	165	15082	10307	7406	5578	4373	3544	2952	2514	2181	1922	1716	1550	1413	1299	1203	1122	1052	991	938	891	850
50000	170	14435	9812	7030	5288	4144	3358	2797	2384	2069	1825	1631	1474	1345	1238	1148	1071	1005	948	898	854	815
50000	175	13824	9350	6682	5020	3932	3187	2656	2264	1967	1736	1553	1405	1284	1182	1097	1025	962	908	861	820	783
50000	180	13245	8917	6358	4771	3736	3029	2525	2154	1873	1655	1482	1342	1227	1131	1050	982	923	872	827	788	754
50000	185	12698	8512	6056	4541	3555	2883	2405	2053	1787	1580	1416	1283	1174	1084	1008	943	887	839	797	759	727
50000	190	12180	8132	5775	4327	3387	2747	2293	1959	1706	1510	1355	1229	1126	1040	968	906	854	808	768	733	702
50000	195	11690	7776	5512	4127	3231	2622	2190	1873	1632	1446	1298	1179	1081	1000	931	873	823	780	742	708	679
50000	200	11226	7442	5267	3942	3086	2506	2094	1792	1564	1386	1246	1133	1040	962	897	842	794	753	717	686	658
80000	5	79824	79701	79542	79347	79119	78859	78569	78251	77907	77540	77151	76742	76316	75873	75416	74947	74465	73974	73475	72967	72454
80000	10	79349	78902	78332	77648	76859	75979	75018	73989	72903	71771	70602	69406	68190	66963	65729	64496	63267	62047	60839	59647	58472
80000	15	78559	77588	76376	74951	73350	71610	69765	67847	65885	63904	61923	59961	58029	56139	54299	52515	50790	49127	47527	45990	44517
80000	20	77454	75785	73748	71419	68880	66209	63471	60722	58006	55356	52795	50339	47998	45776	43675	41694	39829	38075	36429	34883	33431
80000	25	76050	73544	70568	67273	63803	60281	56799	53428	50211	47174	44332	41687	39236	36970	34879	32952	31175	29538	28027	26633	25345
80000	30	74370	70933	66978	62751	58461	54265	50266	46525	43070	39907	37027	34415	32050	29910	27974	26220	24629	23184	21868	20669	19573
80000	35	72446	68032	63126	58073	53135	48480	44194	40312	36828	33722	30960	28507	26328	24389	22660	21115	19730	18486	17365	16352	15433
80000	40	70316	64924	59146	53419	48028	43120	38744	34890	31520	28580	26016	23777	21818	20097	18581	17240	16049	14987	14037	13184	12415
80000	45	68017	61688	55158	48926	43267	38279	33958	30247	27069	24349	22014	20004	18264	16752	15432	14273	13250	12345	11539	10818	10171
80000	50	65590	58396	51252	44683	38915	33980	29812	26309	23363	20880	18776	16984	15448	14124	12975	11973	11094	10318	9631	9019	8471
80000	55	63073	55110	47497	40741	34993	30204	26248	22984	20281	18031	16145	14552	13198	12037	11036	10167	9407	8740	8150	7626	7158
80000	60	60504	51881	43939	37125	31491	26908	23194	20178	17712	15681	13993	12579	11382	10363	9487	8729	8070	7491	6981	6530	6127
80000	65	57914	48748	40605	33836	28383	24040	20580	17806	15564	13733	12222	10963	9904	9005	8235	7571	6994	6490	6046	5654	5304
80000	70	55333	45739	37508	30862	25635	21547	18338	15795	13758	12107	10752	9629	8688	7891	7212	6627	6120	5677	5288	4944	4639
80000	75	52785	42875	34649	28185	23208	19379	16411	14083	12232	10740	9523	8518	7678	6970	6366	5848	5400	5009	4666	4363	4094
80000	80	50290	40166	32022	25781	21066	17491	14750	12618	10934	9584	8487	7584	6832	6199	5661	5200	4801	4454	4149	3881	3642
80000	85	47864	37620	29618	23625	19174	15842	13313	11359	9825	8600	7609	6795	6118	5550	5068	4655	4298	3988	3716	3477	3264
80000	90	45518	35235	27423	21692	17501	14399	12064	10271	8870	7757	6858	6121	5511	4998	4564	4193	3872	3594	3350	3135	2945
80000	95	43262	33010	25420	19958	16018	13132	10974	9327	8045	7030	6212	5543	4990	4526	4134	3798	3509	3258	3038	2845	2673
80000	100	41102	30939	23596	18402	14702	12015	10019	8503	7328	6399	5653	5044	4541	4119	3763	3459	3197	2969	2770	2595	2440
80000	105	39041	29016	21933	17004	13530	11028	9180	7782	6701	5850	5167	4610	4151	3766	3442	3165	2926	2719	2538	2379	2238
80000	110	37079	27232	20419	15745	12485	10152	8438	7147	6151	5368	4741	4231	3810	3459	3162	2909	2691	2502	2337	2191	2063
80000	115	35218	25578	19038	14610	11549	9373	7781	6585	5666	4944	4367	3898	3511	3189	2916	2684	2484	2311	2160	2027	1909
80000	120	33456	24047	17778	13585	10710	8677	7196	6087	5236	4569	4036	3604	3248	2950	2700	2486	2303	2143	2004	1882	1774
80000	125	31789	22629	16627	12657	9954	8054	6674	5643	4854	4236	3743	3343	3014	2740	2508	2311	2142	1995	1867	1754	1655
80000	130	30216	21316	15575	11815	9274	7494	6206	5246	4512	3939	3481	3111	2806	2552	2338	2156	1999	1863	1745	1641	1548
80000	135	28732	20100	14611	11051	8658	6989	5785	4890	4206	3673	3248	2903	2620	2385	2186	2017	1872	1746	1636	1539	1454
80000	140	27333	18972	13728	10354	8100	6534	5406	4569	3931	3434	3038	2717	2454	2234	2050	1892	1757	1640	1538	1448	1369
80000	145	26015	17927	12917	9719	7593	6120	5063	4280	3683	3218	2848	2549	2304	2099	1927	1780	1654	1545	1450	1367	1293
80000	150	24775	16958	12171	9138	7131	5745	4752	4017	3459	3023	2677	2398	2168	1977	1816	1679	1562	1460	1371	1293	1224
80000	155	23607	16058	11485	8607	6709	5403	4469	3779	3255	2847	2522	2260	2045	1866	1716	1588	1478	1382	1299	1226	1162
80000	160	22507	15221	10852	8118	6324	5091	4212	3562	3069	2686	2382	2136	1934	1766	1625	1505	1401	1312	1234	1166	1105
80000	165	21472	14443	10267	7670	5970	4806	3976	3364	2900	2539	2253	2022	1832	1674	1542	1429	1332	1248	1175	1110	1054
80000	170	20498	13719	9727	7256	5645	4544	3760	3183	2745	2405	2136	1918	1739	1591	1466	1360	1268	1190	1121	1060	1007
80000	175	19580	13044	9226	6875	5346	4303	3562	3017	2603	2282	2028	1823	1654	1514	1397	1296	1210	1136	1071	1014	964
80000	180	18716	12415	8762	6522	5070	4082	3380	2864	2473	2170	1929	1735	1576	1444	1333	1238	1157	1087	1025	972	924
80000	185	17901	11827	8330	6196	4816	3877	3212	2723	2353	2066	1838	1655	1504	1379	1274	1185	1108	1042	984	933	888
80000	190	17133	11277	7929	5893	4580	3688	3056	2593	2242	1970	1754	1581	1438	1320	1220	1135	1063	1000	945	897	854
80000	195	16409	10763	7556	5612	4361	3513	2913	2472	2139	1881	1677	1512	1377	1265	1170	1090	1021	961	909	864	823
80000	200	15725	10282	7208	5351	4158	3350	2779	2361	2044	1799	1605	1448	1320	1214	1124	1048	982	926	876	833	794

Note: N_0 = initial density (defined as stems/ha for trees taller than 1.3 m at bhage zero); SI = site index (top height at 50 years bhage); Top height = average height (m) of the 100 largest DBH trees per ha; Stand density values at bhage 50 are stand density factors (SDF).

2.3 The Weibull Diameter Distribution Function

One of the most striking phenomena observed in lodgepole pine stands is the relative smoothness of the cumulative diameter distributions of these stands (see Figures 6 and 7 for examples). The following cumulative Weibull distribution function was found to fit the diameter distribution data quite well:

$$[7] \quad CUM = 1 - \exp\left[-\left(\frac{DBH}{b_0 (H-1.3)^{b_1} N^{b_2} Bhage^{b_3} + b_4 Bhage} \right)^{c_0 \exp[c_1 (H-1.3)] Bhage^{c_2}} \right]$$

where CUM is the cumulative diameter distribution expressed by a number from 0 to 1; DBH (cm) is the tree diameter at breast height; N is the stand density, defined as stems/ha for trees taller than 1.3 m; H is the average height (m) of all trees in the stand taller than 1.3 m; and Bhage is the breast height age of the stand (years). The estimated coefficients are found to be: b_0 = 9.702019, b_1 = 0.796606, b_2 = -0.204526, b_3 = -0.0316423, b_4 = 0.0246783, c_0 = 2.694615, c_1 = 0.0277951, and c_2 = -0.00708821.

The Weibull diameter distribution function [7] was estimated using a one-step parameter prediction method, on the combined diameter distribution data from all sample plots (Huang 2001). The conventional two-step parameter recovery method of fitting separate Weibull distribution to the diameter-class frequency data from each individual plot, and then regressing the estimated parameters to other plot-level variables such as site index and stand density (see Clutter et al. 1983), was found to be less efficient than the one-step parameter prediction approach.

The estimated Weibull function [7] can be partitioned into a distance-independent individual tree model. This involves the use of the "inverse-distribution" approach (Huang 2001), a concept derived from the "inverse-regression" procedure (Draper and Smith 1998). To illustrate, assuming that there are N trees in a 1-ha stand, and the diameters of these trees are known. Based on this assumption and equation [7], the cumulative Weibull diameter distribution function corresponding to the *i*th tree, where *i* = 1, 2, 3, ..., N, can be written as follows:

$$[8] \quad CUM_i = i \times \frac{1}{N} = 1 - \exp\left[-\left(\frac{DBH_i}{b} \right)^c \right]$$

where 1/N is the relative frequency for each tree in the stand, DBH_i is the diameter at breast height for the *i*th tree, and *b* and *c* are parameters defined in [9]:

$$[9] \quad b = b_0 (H-1.3)^{b_1} N^{b_2} Bhage^{b_3} + b_4 Bhage$$

$$c = c_0 \exp[c_1 (H-1.3)] Bhage^{c_2}$$

Applying the inverse-distribution approach (Huang 2001), DBH_i in equation [8] can be solved inversely to give:

$$[10] \quad DBH_i = b\left[-\ln(1 - CUM_i) \right]^{1/c}$$

Therefore, once the cumulative Weibull distribution function is estimated and the *b* and *c* parameters are known, the diameter of every tree in the stand can be calculated according to [10]. An example calculation is provided in Huang (2001).

In essence, the partitioning of the Weibull function into a tree model involves dividing the function into many narrow diameter classes of unequal intervals, such that there is only one tree in each class.

Because of the way that the Weibull function was partitioned, GYPSY allows for the generation of compatible projections on three levels of detail: whole stand, diameter class and individual tree. Diameter class and stand-level yields are obtained by accumulating the yields of individual trees from the partitioned function. GYPSY's ability to provide individual tree yield estimation without requiring the fit of individual tree models, and all projections generated by GYPSY on three levels of detail are guaranteed to be compatible, can be useful in practical applications.

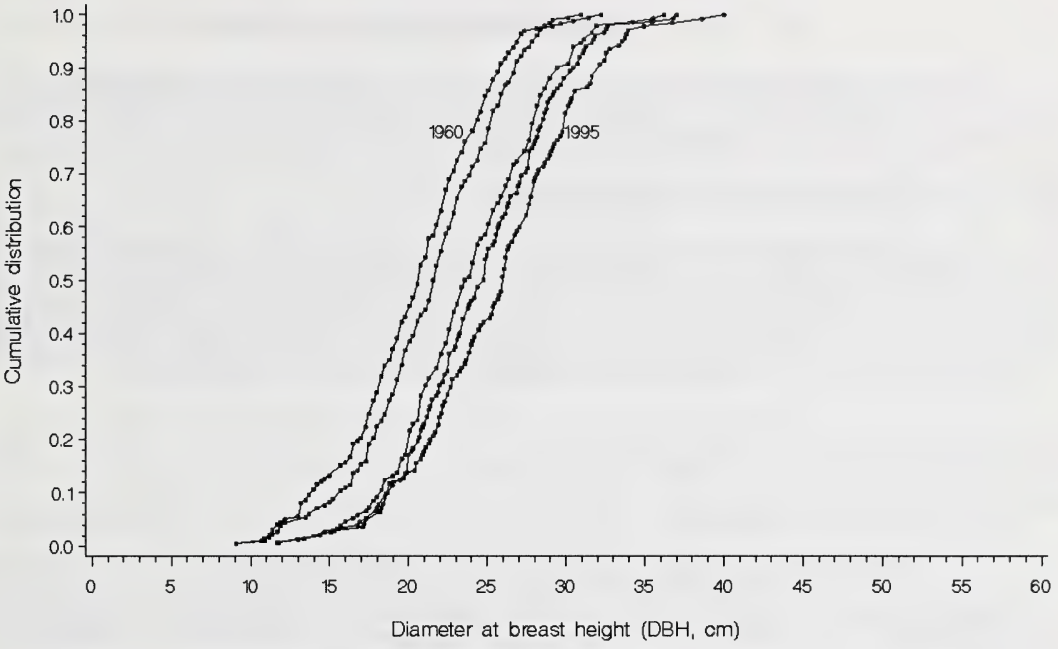


Figure 6. Cumulative diameter distribution curves for an example permanent sample plot measured 5 times over a 35-year period. The curves (from left to right) represent the cumulative diameter distribution at 1960, 1965, 1980, 1985, and 1995, respectively. The dots on each curve represent the actual observations of tree diameter at breast height (DBH).

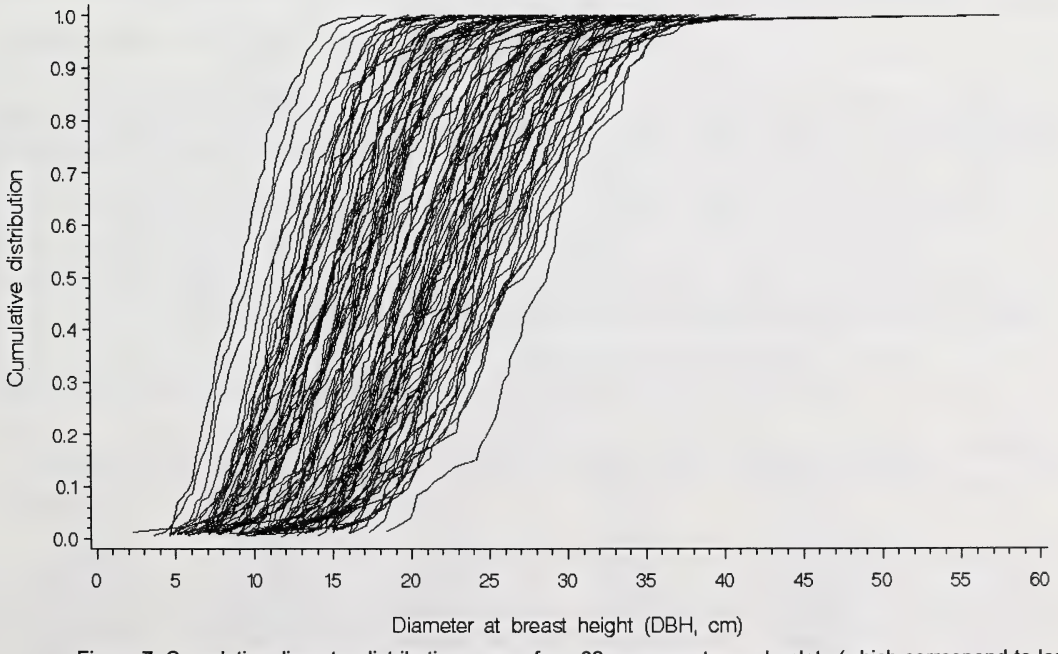


Figure 7. Cumulative diameter distribution curves from 32 permanent sample plots (which correspond to less than 10% of the data used to estimate the Weibull distribution function). Each curve in this graph represents the cumulative diameter distribution for one plot at a specific measurement year.

3.0 The Auxiliary Models and Variables

A number of auxiliary models used in GYPSY for seed-origin natural and regenerated lodgepole pine stands are presented here. These models show the specific relationships among the variables that appear in GYPSY. They can be used to predict various tree and stand characteristics.

3.1 The Individual Tree Height Prediction Model

The most frequently used height prediction models are the so-called "height-diameter" equations, which predict total tree height as a function of tree diameter at breast height (Huang et al. 1992; Huang 1999; Huang et al. 2000a). The predictive capability of the height-diameter equation is typically improved if additional tree and stand variables are added into the equation, such as the inclusion of tree or stand age, stand basal area, competition index, and site productivity (Larsen and Hann 1987; Huang and Titus 1994). The height prediction model developed for lodgepole pine in Alberta takes the following form:

[11] $$Ht = 1.3 + a[1 - \exp(-bDBH)]^c$$

$$a = a_0 (H_{TOP} - 1.3)^{a_1} BA^{a_2} Bhage^{a_3} \exp(-a_4 Bhage)$$

$$c = c_0 \exp[c_1 (H_{TOP} - 1.3)] D_q^{c_2}$$

where: Ht = total tree height (m); DBH = tree diameter (cm) at breast height; H_{TOP} = top height (m), defined as the average height of the 100 largest DBH trees per ha; Bhage = breast height age of the stand (years); BA = total stand basal area (m^2/ha); and D_q = quadratic mean diameter (cm) of the stand. The coefficients are: a_0 = 2.998310, a_1 = 0.539976, a_2 = 0.0476366, a_3 = 0.0970740, a_4 = 0.00146169, b = 0.0734742, c_0 = 0.734763, c_1 = 0.0376660 and c_2 = -0.0568916.

3.2 The Taper Function

A slightly modified version of Kozak's (1988) variable-exponent taper equation (Huang et al. 1999; Huang et al. 2000b), was estimated for lodgepole pine in Alberta:

[12] $$d_i = a_0 D^{a_1} a_2^{\,D} X_i^{\,b_1 z_i^2 + b_2 \ln(z_i + 0.001) + b_3 \sqrt{z_i} + b_4 e^{z_i} + b_5 (D/H)} + \varepsilon_i, \quad with\ X_i = \frac{1 - \sqrt{h_i / H}}{1 - \sqrt{p}}$$

where d_i is the diameter inside bark (cm) at h_i, h_i is the height (m) above ground ($0 \le h_i \le H$), H is the total tree height (m), D is the breast height diameter outside bark (cm), z_i is the ratio h_i/H, p is the relative height constraint, e is the base of the natural logarithm ($\approx$2.7182818), a_0–a_2 and b_1–b_5 are model parameters, and ε_i is the random error term. In earlier applications of the variable-exponent taper equation (Huang 1994b), the relative height constraint (p) was always fixed at 0.225 (p = 0.225). More recent analyses showed that p can be treated as a parameter and estimated as a part of the nonlinear least squares procedure (Huang et al. 1999; Huang et al. 2000b). The taper coefficients (a_0–a_2, b_1–b_5 and p, see Table 5) are obtained for the province as a whole and for four groups of natural subregions defined in Table 10.

Table 5. Estimated coefficients for the taper equation [12].

Parameter	Natural regions and subregions				
	Upper Foothills	Lower Foothills	Rocky Mountains	Boreal Forests	Provincial
a_0	0.879371	0.863582	0.711755	1.172616	0.895570
a_1	0.993918	1.007630	1.082514	0.916568	0.993413
a_2	0.998705	0.998330	0.993001	1.001729	0.998760
b_1	0.683888	0.700037	0.592624	0.122037	0.670582
b_2	-0.128590	-0.128078	-0.134483	-0.073367	-0.129714
b_3	0.581085	0.485249	0.912729	-0.409039	0.502222
b_4	-0.268978	-0.267443	-0.368488	0.289422	-0.251220
b_5	0.090963	0.134962	0.070668	0.099513	0.110855
p	0.240571	0.197189	0.366587	0.053975	0.197424

3.3 Merchantable Volume at Any Utilization Standard

In Alberta, the most commonly used utilization standards for merchantable volume are 13/7, 15/10 and 15/11, and the most commonly used stump height is 0.30 m above ground, where 13 or 15 refers to the stump diameter outside bark, and 7, 10 or 11 refers to the top diameter inside bark. With the estimated taper coefficients provided in Table 5 and the diameter inside-outside bark relationship described in Huang (1994b), merchantable volume at any user-defined utilization standard can be computed. The computation involves several steps: 1) specify the utilization standard (e.g., 8/6, 13/7, 13/9, 15/10, 15/11); 2) specify the stump height (e.g., 0.10, 0.15, 0.18, 0.30 m); 3) specify the minimum merchantable length (e.g., 2.44, 3.66 m); 4) calculate the stump diameter inside bark at the specified stump height using the taper equation [12]; and 5) convert the stump diameter inside bark into stump diameter outside bark using the diameter inside-outside bark relationship (Huang 1994b). Once the stump diameter outside bark is obtained, it is compared to the specified utilization standard to determine if a tree is merchantable or not. For merchantable trees, merchantable volume calculations follow those described in Huang (1994b).

The yield relationships displayed in Appendix 1 are based on four utilization standards specified in Table 6: 0/0, 8/6, 13/7 and 15/10, where 0/0 indicates the gross total volume of the stand. By modifying the stump height value and the minimum values for stump diameter outside bark, top diameter inside bark and merchantable length, GYPSY can also be used to generate yield relationships at any other user-specified utilization standard (Huang 2001). Users can input any utilization standard when running ExcelGYPSY.

Table 6. Specifications of the four utilization standards.

Utilization standard	Stump height (m)	Min. stump diameter outside bark (cm)	Top diameter inside bark (cm)	Min. merchantable length (m)
0/0	0.00	0	0	0.00
8/6	0.15	8	6	2.44
13/7	0.30	13	7	2.44
15/10	0.30	15	10	2.44

3.4 Top Height and Stand Height Relationship

The relationship between top height and stand height is shown in Figure 8, where top height refers to the average height of the 100 largest DBH trees per ha, and stand height refers to the average height of dominant and co-dominant trees in the stand.

A model was developed to describe the relationship between top height and stand height:

[13] $$H_{TOP} = a[1 - \exp(-bH_{DC})]$$

where H_{TOP} is top height (m), defined as the average height of the 100 largest diameter trees per ha, and H_{DC} is stand height (m), defined as the average height of dominant and co-dominant trees in the stand. The coefficients are: a = 145.311296 and b = 0.0079641. If stand height is known, top height H_{TOP} can be predicted directly from equation [13]. If top height is known, stand height H_{DC} can be solved inversely from [13] based on the inverse regression procedure descibed by Draper and Smith (1998).

As shown in Figure 8, the relationship between top height and stand height is strong (R^2 = 0.966, where R^2 is the coefficient of determination). On average, top height is approximately 7.39% higher than stand height.

Based on the top height and stand height relationship shown in [13], it is relatively straightforward to demonstrate that the top height–site index equations and the site index prediction tables presented in Section 2.1 can be converted into stand height based site index equations and tables, if the main interest is in stand height. The most important reason that GYPSY concentrates on top height rather than stand height is that the selection of top height trees (largest DBH trees) is objective, consistent and repeatable, whereas the selection of stand height trees (i.e., dominant and co-dominant trees) can sometimes be fairly subjective, inconsistent and unrepeatable (Nicholas et al. 1991).

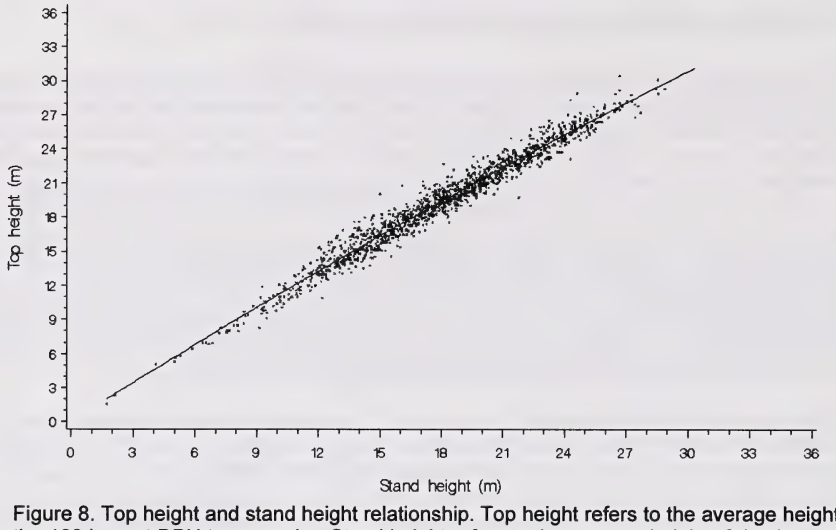


Figure 8. Top height and stand height relationship. Top height refers to the average height of the 100 largest DBH trees per ha. Stand height refers to the average height of dominant and co-dominant trees in the stand. The dots represent the original observations. The fitted line is described by equation [13].

In Alberta, many existing inventories such as the Alberta Vegetation Inventory and Phase 3 Forest Inventory use stand height. The stand height attribute attached to inventory polygon labels is the average height of dominant and co-dominant trees determined by photo interpreters. Based on equation [13], the interpreted stand height can be readily converted into top height.

3.5 Stand Density and Average Height Relationship

Within a reasonable range of stand density, the height growth of dominant and co-dominant trees is not affected (or relatively unaffected) by stand density. This is the most important foundation that the site index concept is built on. However, there are situations in which the height growth is found to be influenced by stand density, particularly with regard to some pine species (Alexander et al. 1967; Monserud 1984). When the average height (of all trees taller than 1.3 m), instead of the dominant and co-dominant height, is considered, the impact of stand density on height growth becomes more profound.

A number of hypothesized potential stand density and height relationships illustrated in Figure 9 were examined. While exceptions existed, it was observed that in general, the average height of lodgepole pine stands is relatively unaffected by low stand density, but when the stand density increases, the height growth gradually slows down, resulting in shorter trees. This scenario is most aptly portrayed by graph (2) of Figure 9. A model that describes the stand density and average height relationship was found to be:

$$[14] \quad H = (SI_{totage} - k) \times \left(\frac{1 + \exp(b_1 + b_2\sqrt{\ln(1+50)} + b_3[\ln(SI_{totage})]^2 + b_4\sqrt{50})}{1 + \exp(b_1 + b_2\sqrt{\ln(1+totage)} + b_3[\ln(SI_{totage})]^2 + b_4\sqrt{50})} \right)$$

$$k = (SI_{totage} - 1.3) \times \left[1 - \exp\left(\frac{-c_1 H_{TOP} N_0 \sqrt{SI_{totage}}}{10000} \right) \right]^{\frac{2}{1 + c_2 H_{TOP} + \ln(SI_{totage}^4 + N_0)}}$$

where: H = average height (m) of all trees taller than 1.3 m in the stand; SI_{totage} = total age based site index (m); totage = total age of the stand (years); N_0 = initial density (stems/ha) at bhage zero; H_{TOP} = top height (m), defined as the average height of the 100 largest DBH trees per ha; exp = exponent (≈2.7182818); ln = natural logarithm; b_1 = 10.967495; b_2 = -5.417569; b_3 = -0.167170; b_4 = 0.158292; c_1 = 0.000109527; and c_2 = -0.255312. Three example graphs illustrating the shape of equation [14], are shown in Figure 10.

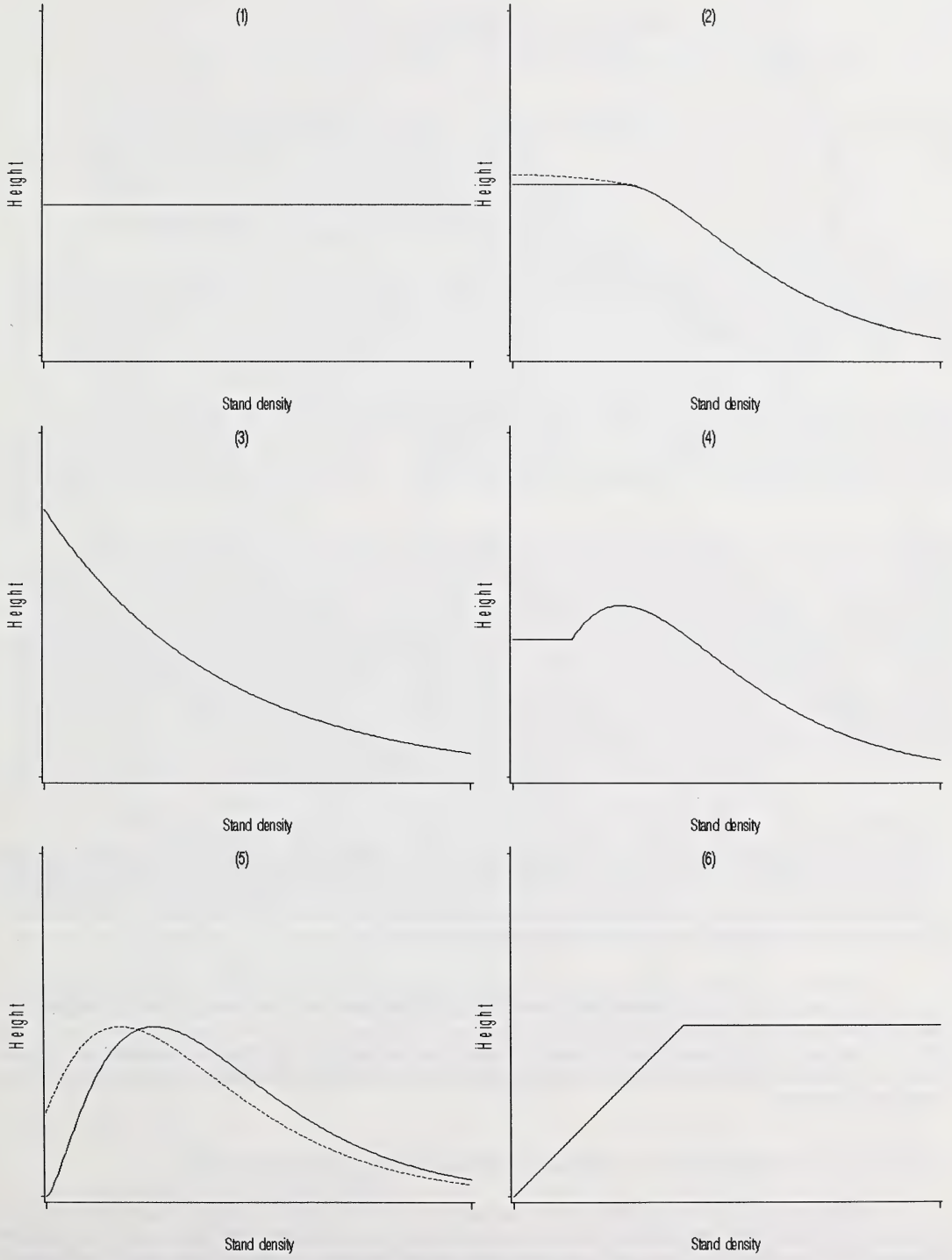


Figure 9. Hypothesized potential stand density and height relationships. Stand density (stems/ha) refers to the total number of trees per ha taller than 1.3 m. Height can refer to the average height of dominant and co-dominant trees, or the average height of all trees taller than 1.3 m in the stand.

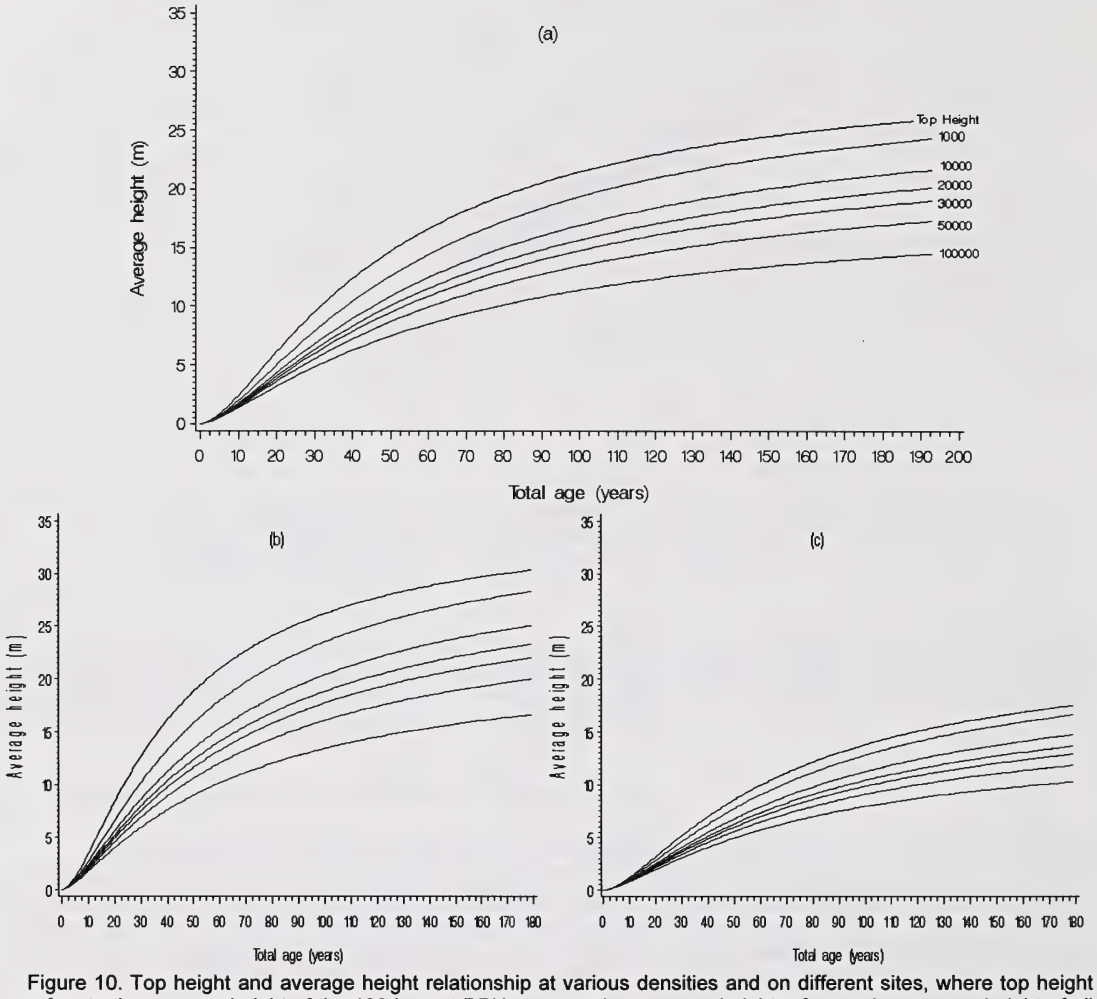


Figure 10. Top height and average height relationship at various densities and on different sites, where top height refers to the average height of the 100 largest DBH trees per ha, average height refers to the average height of all trees taller than 1.3 m in the stand, and 1000, 10000, 20000, 30000, 50000 and 100000 (stems/ha) in graph (a) are initial densities. For graphs (a), (b) and (c), the site index values are 16, 20 and 10 m, respectively. The sequence of the curves appearing in graph (a) also applies to graphs (b) and (c).

Equation [14] implies that on any given site (with a known site index value), top height, defined as the average height of the 100 largest DBH trees per ha, is unaffected by stand density. This complies with the conventional assumption that the site index concept is built upon. The stand density effect in equation [14] is modelled in such a way that it impacts only the average height of all trees in the stand, but not the average height of the 100 largest DBH trees per ha. In the next section, the impact of stand density on top height is evaluated.

3.6 Density-Induced Height Repression and Site Index Realization Ratio

Height repression usually refers to the density-induced slow down of height growth of all trees in the stand. Severe height repression in extremely dense stands may lead to stagnant stands (Mitchell and Goudie 1980; Goudie 1996). In order to assess and quantify the amount of height repression, the following top height and site index relationship, with the stand density effect included, was developed based on the lodgepole pine PSP data:

$$[15] \quad H_{TOP} = (SI_{totage} - k) \times \left(\frac{1 + \exp(b_1 + b_2\sqrt{\ln(1+50)} + b_3[\ln(SI_{totage})]^2 + b_4\sqrt{50})}{1 + \exp(b_1 + b_2\sqrt{\ln(1+totage)} + b_3[\ln(SI_{totage})]^2 + b_4\sqrt{50})} \right)$$

$$k = (SI_{totage} - 1.3) \times \left(1 - \exp\left[-\frac{1}{2} \ln\left(SI_{totage} + \frac{N_0}{\sqrt{SI_{totage}}} + \sqrt{N_0} \right) \right] \right)^c$$

$$c = \frac{b_5}{1 + totage/100 + \ln[SI_{totage} + totage^2 + \ln(1+N_0)]}$$

where: H_{TOP} = top height (m), defined as the average height of the 100 largest DBH trees per ha; SI_{totage} = totage based site index (m); totage = total age of the stand (years); N_0 = initial density (stems/ha) at bhage zero; exp = exponent (≈2.718282); ln = natural logarithm; b_1 = 10.967495; b_2 = -5.417569; b_3 = -0.167170; b_4 = 0.158292 and b_5 = 2567.746347. When N_0 = 0, $k \cong 0$ (k is congruent to zero because $k < 1.0 \times 10^{-18}$ for $1.3 < SI_{totage} < 30$), which means that [15] reduces to the density-free site index equation [1].

Several example graphs illustrating the density-induced height repression described by equation [15] are shown in Figure 11. It was observed that in general, when the initial density N_0 is less than 10000 stems/ha, there is a marginal (and practically negligible) amount of height repression. When N_0 is less than 5000 stems/ha, the top height trajectory is virtually identical to that obtained using an initial density of zero (see Figure 11).

While the practice of incorporating stand density into the site index model $H_{TOP} = f(SI_{totage}, totage)$ may appear simple and straightforward, it in fact represents a fundamental change in the denifition and the understanding of the site index concept. When $H_{TOP} = f(SI_{totage}, totage, density)$ is used, different densities will, not only lead to different site indices given the same height and age, but also to different heights given the same site index and age. What this means is that, by controlling the density factor, one can increase or decrease the site productivity and get different site index values for the same site. One can also alter the site productivity in the middle of stand development through some silvicultural means such as thinning and selective cutting. Operationally, with $H_{TOP} = f(SI_{totage}, totage, density)$, one can manage the stand density to get an increased site productivity, and consequently, an increased volume production under different stand density management regimes. Of course, one may also decrease the site productivity and get a reduced volume production if a poor stand density management practice was implemented.

Traditionally, site index is a fixed stand attribute by definition, and is assumed to be unaffected (or more or less unaffected) by a wide range of stand density. With the inclusion of the stand density effect in the site index model, site index is no longer a fixed stand attribute, and site productivity as defined by site index can be altered. Clearly, this is contrary to the conventional site index concept, but it is probably more realistic in many practical situations in which stand density exerts a statistically significant impact on height growth. Additional studies in this area may be needed. Currently, equation [15] is used only in the GYPSY version for thinned lodgepole pine stands.

Potential site index, site index realization ratio and height repression index

Based on equation [15], the concepts of potential site index (SIP), realized or observed site index (SIO), site index realization ratio (SIRR), and height repression index (RI) can be established:

$$[16] \quad SIRR = \frac{SIO}{SIP}$$

$$[17] \quad RI = 100\left(1 - \frac{SIO}{SIP}\right) = 100(1 - SIRR)$$

where SIRR is the site index realization ratio, SIO is the observed site index derived from the conventional site index equation $H_{TOP} = f(SI_{totage}, totage)$, and SIP is the potential site index derived from equation [15]. More detailed descriptions of the actual procedures used in calculating SIP, SIO, SIRR and RI, along with the tables listing the calculated results, are provided in Huang (2001).

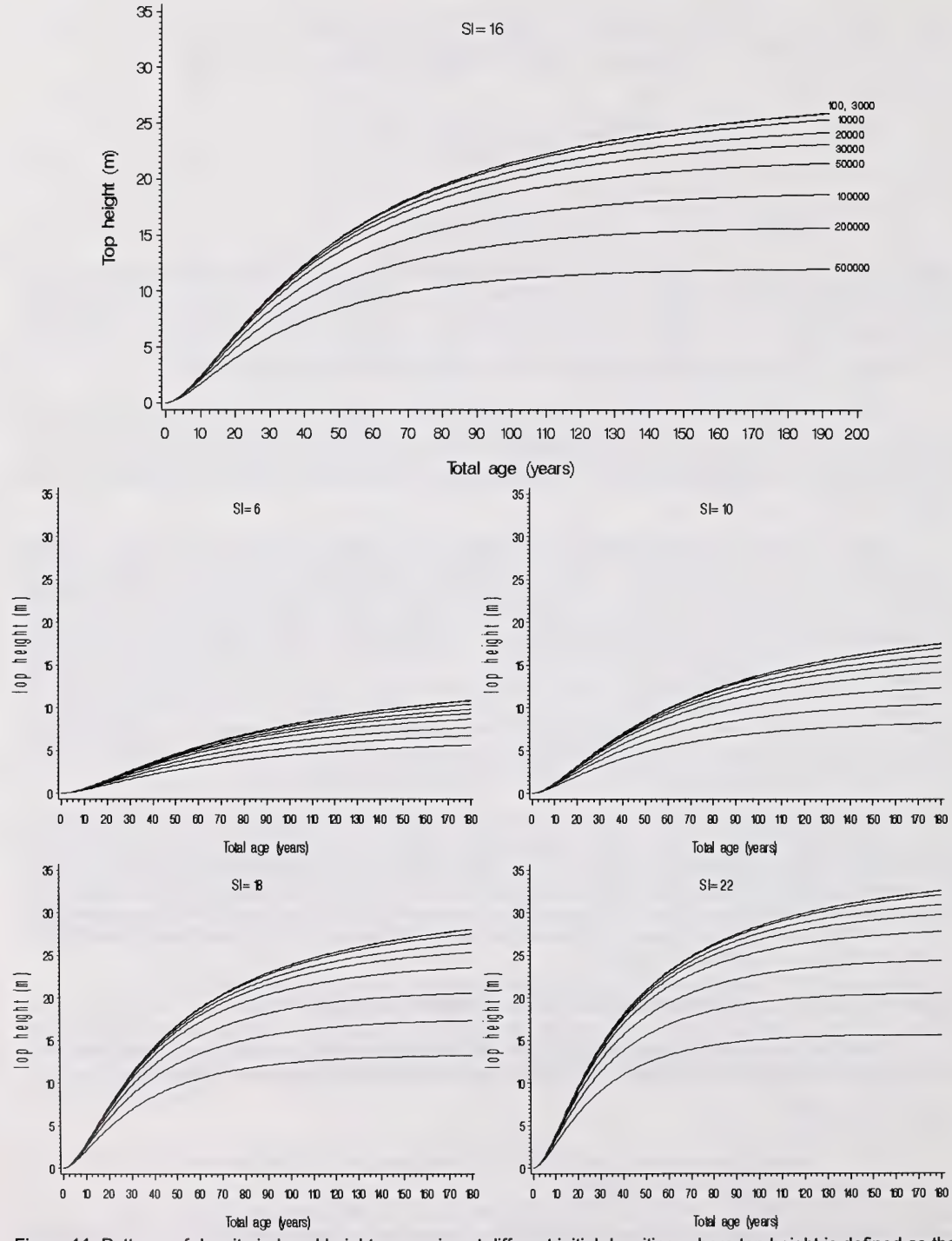


Figure 11. Patterns of density-induced height repression at different initial densities, where top height is defined as the average height (m) of the 100 largest DBH trees per ha. The numbers listed on the right-hand side in the top graph are initial densities (stems/ha). The same initial densities, in the same sequence as shown in the top graph, are used in all graphs. The SI values (16, 6, 10, 18 and 22) refer to the site indices (m) at 50 years bhage.

3.7 The Growth Intercept Model

The most typical method of estimating site index from top height and age requires measurements of top height and one of the three ages (total age, stump age or breast height age). Sometimes, the field measurements on top height and age may be rather time consuming and difficult to obtain, for increment cores and total tree height must be taken. A more efficient approach of estimating site index, especially in young stands, is to use growth intercept or height increment without requiring measurements on total tree height and age. Such a "heightless" and "ageless" site index prediction method possesses some practical advantages as increment cores and top height are no longer needed any more.

Growth intercept (GI) is defined as the periodic height increment (in m/year) above a chosen base height. Often, different growth intercept periods (also termed lengths) such as 3-, 4-, 5- and 10-years, and different but fixed base heights such as 0.3, 0.5, 0.75, 0.8, 1.0, 1.3, 1.5 and 2.0 m above ground, are used (Figure 12). Huang (1994a; 1996) reviewed the historical development of the growth intercept techniques and discussed some of the primary characteristics (e.g., a fixed base height, a fixed growth interval length) and potential incompatibilities associated with the growth intercept models.

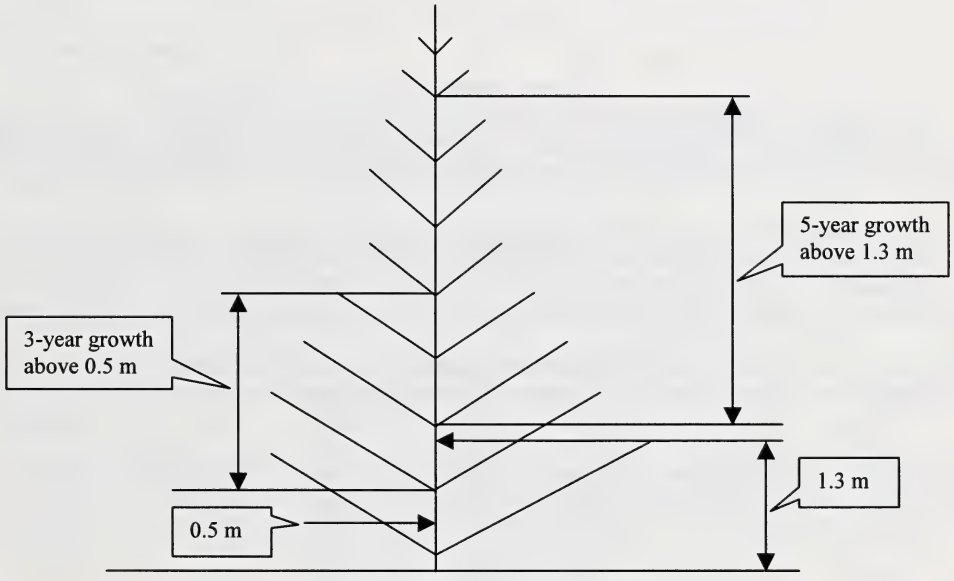


Figure 12. An illustration of growth intercept. Growth intercept (GI) is defined as the periodic height increment (m/year) above a pre-selected base height. On the left is a 3-year growth intercept above the base height of 0.5 m. On the right is a 5-year growth intercept above the breast height. Note that the length of time (e.g., 3-years, or 5-years) and the base height of the growth intercept can be varied.

In GYPSY, the recommended growth intercept to be used is the 5-year growth intercept above 1.3 m, which is illustrated on the right-hand side of Figure 12. The growth intercept model estimated in GYPSY takes the following form:

$$[18] \qquad SI_{bhage} = \frac{GI5}{a + bGI5}$$

where GI5 is the 5-year growth intercept (m/year) above the breast height of 1.3 m above ground, SI_{bhage} is the breast height age based site index, which equals to the top height at 50 years bhage, and top height is defined as the average height of the 100 largest DBH trees per ha. The estimated coefficients for equation [18] are: a = 0.00850048 and b = 0.032694. Figure 13 shows the fitted growth intercept model overlaid on the original plot data used to estimate the model.

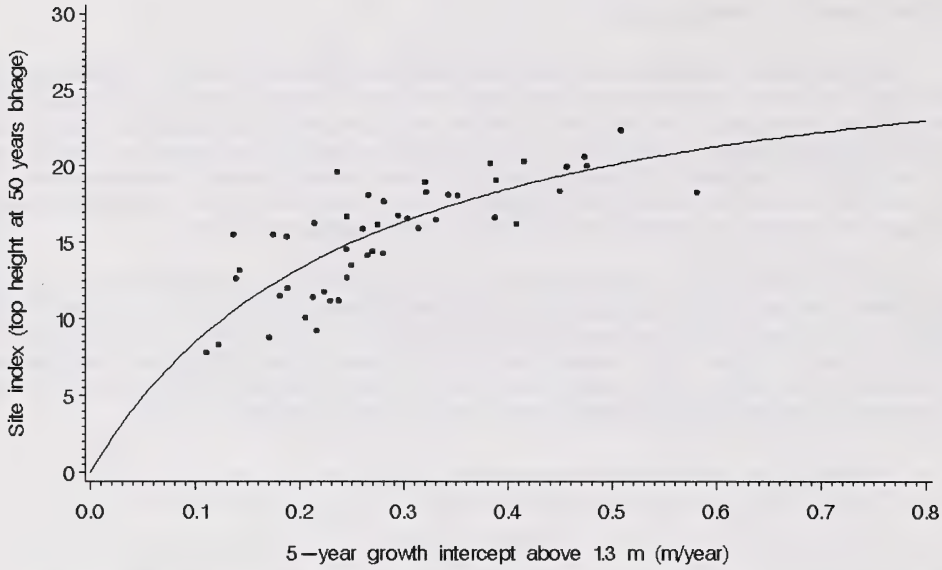


Figure 13. Relationship between site index and 5-year growth intercept above 1.3 m. Site index is defined as the top height (m) at 50 years bhage. The curve is described by model [18]. Each dot represents an original observation obtained from three largest DBH trees sectioned longitudinally in each plot.

Table 7 lists the predicted site indices at different values of GI5. To predict the site index of a plot, a plot-based GI5 can first be obtained by averaging the three GI5s from three largest DBH trees in each 0.03-ha plot. A corresponding site index for the plot is then obtained directly from Table 7. A more detailed description on the use of the growth intercept model for site index prediction is provided in Huang (2001).

Table 7. Site index predictions based on 5-year growth intercepts above 1.3 m.

GI5 (m/year)	SI (m)	GI5 (m/year)	SI (m)	GI5 (m/year)	SI (m)	GI5 (m/year)	SI (m)
0.00	0.00	0.26	15.29	0.51	20.26	0.76	22.79
0.02	2.18	0.27	15.58	0.52	20.39	0.77	22.87
0.03	3.16	0.28	15.86	0.53	20.52	0.78	22.94
0.04	4.08	0.29	16.13	0.54	20.65	0.79	23.01
0.05	4.93	0.30	16.39	0.55	20.77	0.80	23.08
0.06	5.73	0.31	16.63	0.56	20.89	0.81	23.15
0.07	6.49	0.32	16.88	0.57	21.01	0.82	23.22
0.08	7.20	0.33	17.11	0.58	21.12	0.83	23.29
0.09	7.87	0.34	17.33	0.59	21.23	0.84	23.36
0.10	8.50	0.35	17.55	0.60	21.34	0.85	23.42
0.11	9.09	0.36	17.76	0.61	21.45	0.86	23.49
0.12	9.66	0.37	17.96	0.62	21.55	0.87	23.55
0.13	10.20	0.38	18.16	0.63	21.65	0.88	23.61
0.14	10.71	0.39	18.35	0.64	21.75	0.89	23.67
0.15	11.19	0.40	18.54	0.65	21.85	0.90	23.73
0.16	11.65	0.41	18.72	0.66	21.94	0.91	23.79
0.17	12.09	0.42	18.89	0.67	22.04	0.92	23.85
0.18	12.51	0.43	19.06	0.68	22.13	0.93	23.90
0.19	12.91	0.44	19.23	0.69	22.22	0.94	23.96
0.20	13.30	0.45	19.39	0.70	22.30	0.95	24.01
0.21	13.67	0.46	19.54	0.71	22.39	0.96	24.07
0.22	14.02	0.47	19.69	0.72	22.47	0.97	24.12
0.23	14.36	0.48	19.84	0.73	22.55	0.98	24.17
0.24	14.68	0.49	19.98	0.74	22.63	0.99	24.22
0.25	14.99	0.50	20.12	0.75	22.71	1.00	24.27

Note: GI5 is the 5-year growth intercept (m/year) above 1.3 m. SI is the bhage based site index, which equals to the top height (m) at 50 years bhage. To predict the site index of a plot, a plot-based GI5 can first be obtained by averaging the three GI5s from three site (largest DBH) trees in each 0.03-ha plot. The site index value for the plot is then read directly from this table.

3.8 Estimating Stand Height from Top Height and Average Height

Based on the data from permanent sample plots, a model was developed to estimate stand height from top height and average height:

$$[19] \quad H_{DC} = H + \frac{H_{TOP} - H}{1 + \frac{b}{H^c}}$$

where: H_{DC} is stand height (m), defined as the average height of dominant and co-dominant trees in the stand; H_{TOP} is top height (m), defined as the average height of the 100 largest DBH trees per ha; and H is average height (m), defined as the average height of all trees taller than 1.3 m in the stand. The estimated coefficients for [19] are: b = 0.172967 and c = -0.386941.

Once the values for top height and average height are known, stand height can be predicted from equation [19]. The stand height value predicted from [19] is bounded between the average height (H) and the top height (H_{TOP}) of a stand.

3.9 Mean Annual Increment

Mean annual increment (MAI) refers to the average annual volume growth up to any given age. It applies to gross total volume as well as to merchantable volumes at different utilization standards. MAI is calculated as the volume attained at any age divided by the age. In practice, total age is more commonly used when dealing with MAI.

An expression used to calculate MAI can be written as follows:

$$[20] \quad MAI = \frac{V_{totage}}{totage}$$

where MAI is the mean annual increment (m^3/ha/year) associated with V_{totage}, V_{totage} can be the gross total volume or merchantable volume at any specified utilization standard (m^3/ha), and totage is the total age of the stand (years).

The calculation of MAI at different ages has a special meaning in forest management. The age at which the MAI reaches the maximum is usually referred to as the age of maximum MAI. It has some very important management implications, and represents the biological rotation age at which maximum volume growth is achieved.

3.10 Maximum Stand Density and Stand Density Index

Stand density index (SDI) is a concept initiated by Reineke (1933). It is based on the limiting (or maximum) relationship between stand density and average stand diameter (or quadratic mean diameter). For lodgepole pine stands in Alberta, this limiting relationship was found to be:

$$[21] \quad N_{\max} = \frac{b_1}{1 + \exp[b_2 + b_3 \ln(1 + D)]} - D$$

where N_{max} is the maximum stand density (stems/ha) at any given D, and D is the arithmetic average stand diameter (cm). The estimated coefficients are: b_1 = 84530.89161, b_2 = -2.33386, and b_3 = 1.92012. Both the PSP data and the provincial temporary sample plot (TSP) data for lodgepole pine stands were used in deriving the estimates for [21]. Figure 14 shows equation [21] overlaid on the original data from PSPs and TSPs.

The maximum density-size relationship expressed in [21] was developed based on the boundary analysis on the density-size observations shown in Figure 14. The conventional method of developing an

average density line based on the density-size data from vaguely defined "fully-stocked" stands, and then labelling this average density line as the maximum density line, is not really pertinent. The *average* density line obtained from "fully-stocked" stands is quite different from the *maximum* density line obtained through boundary analysis.

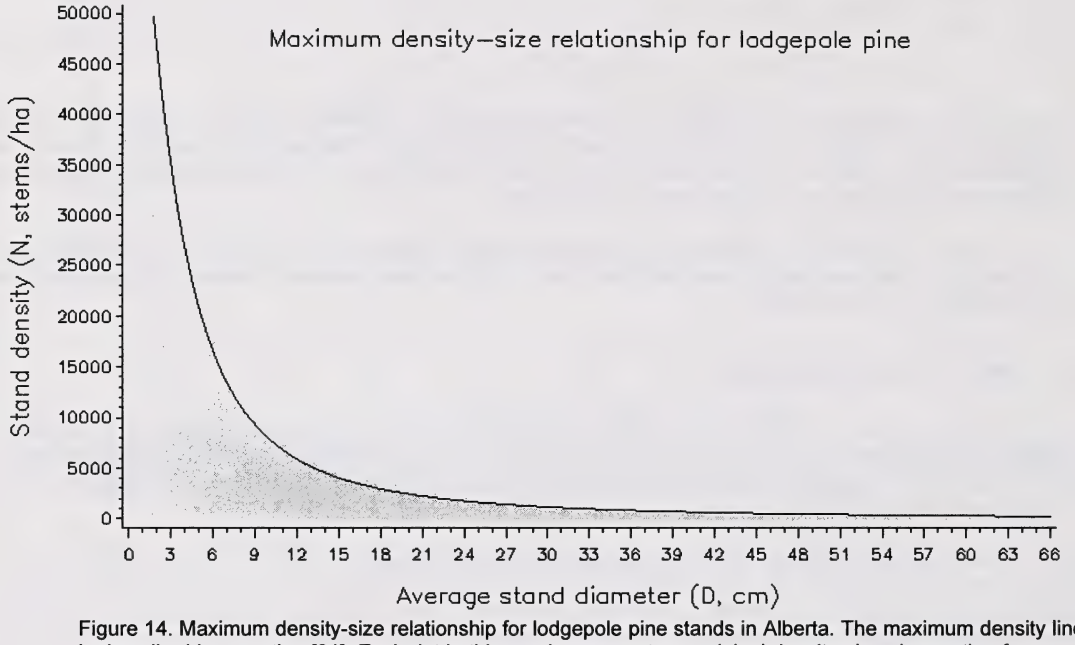


Figure 14. Maximum density-size relationship for lodgepole pine stands in Alberta. The maximum density line is described by equation [21]. Each dot in this graph represents an original density-size observation from one permanent or temporary sample plot.

The logarithmic transformation procedure, typically seen in developing density–size relationships, was not used when estimating equation [21]. The direct estimation of [21] in its original form eliminated the biases associated with the logarithmic transformation, and allowed the results to be interpreted directly on original data, rather than on transformed data.

If the maximum stand density index (SDI_{max}) is defined as the expected maximum number of trees per ha when D equals to 10 cm, equation [21] can be re-written as:

$$[22] \quad SDI_{\max} = \frac{b_1}{1+\exp[b_2 + b_3 \ln(1+10)]} - 10$$

Isolating b_1 from [22] gives:

$$[23] \quad b_1 = (SDI_{\max} + 10)(1+\exp[b_2 + b_3 \ln(1+10)])$$

Substituting [23] into [21] produces:

$$[24] \quad N_{\max} = \frac{(SDI_{\max} + 10)(1+\exp[b_2 + b_3 \ln(1+10)])}{1+\exp[b_2 + b_3 \ln(1+D)]} - D$$

Re-arranging [24] for SDI_{max} gives:

$$[25] \quad SDI_{\max} = (N_{\max} + D) \times \left(\frac{1+\exp[b_2 + b_3 \ln(1+D)]}{1+\exp[b_2 + b_3 \ln(1+10)]} \right) - 10$$

Therefore, for any stand of known density (N) and average diameter (D), the stand density index (SDI) can be computed by:

$$[26] \quad SDI = (N + D)\left(\frac{1+\exp[b_2 + b_3 \ln(1+D)]}{1+\exp[b_2 + b_3 \ln(1+10)]}\right) - 10$$

where: SDI = stand density index (which refers to the expected number of trees per ha when D = 10 cm), D = arithmetic average stand diameter (cm), and N = stand density (stems/ha), defined as the total number of trees per ha taller than 1.3 m. The SDI value calculated from [26] can be used to compare two stands with different densities and average diameters to determine which stand is relatively denser. It can also be compared to the SDI_{max} value from [25] to determine the relative stocking of a stand.

For practical purposes, the SDI value calculated from equation [26] can be grouped into one of the three broad density classes defined in Table 8. Stocking can then be determined approximately based on the SDI ranges and some silvicultural and management considerations.

Table 8. Stand density classes and stockings for lodgepole pine in Alberta.

Density class (DC)	SDI ranges (stems/ha)	Definition	Stocking
1	0 < SDI < 2500	Low	Under-stocked
2	2500 ≤ SDI < 4500	Medium to high	Fully-stocked
3	4500 ≤ SDI	Very high	Over-stocked

Note: SDI is stand density index, defined as the stand density (stems/ha) at a reference average stand diameter of 10 cm.

Reineke's (1933) stand density index is one of most frequently referenced stand density measures in growth and yield studies and silvicultural research. It was based on the limiting relationship between the number of trees and the average tree size observed in "fully-stocked" stands. As seen from the above SDI formulation implemented in GYPSY, several changes were made to Reineke's (1933) stand density index. The main objective of these changes was to take out some of the potential ambiguities associated with the original derivation of SDI. Several conceptual modifications to the original SDI were also made in GYPSY. They are discussed in Huang (2001).

3.11 Maximum Mean Tree Volume and Relative Density Index

Relative density index (RDI) is a concept initiated by Drew and Flewelling (1979). It is very similar to the stand density index developed by Reineke (1933). RDI is based on the so-called -3/2 power law of self-thinning that describes the limiting relationship between mean tree volume and stand density (number of trees per ha).

A graph showing the original mean tree volume and stand density observations from permanent and temporary sample plots is displayed in Figure 15. A model describing the limiting relationship between mean tree volume and stand density was found to be:

$$[27] \quad v_{max} = \frac{b_1}{1+\exp[b_2 + b_3 \ln(N+200)]}$$

where v_{max} is the expected maximum mean tree volume (m^3/tree) at a given stand density, N is the stand density (stems/ha), defined as the total number of trees taller than 1.3 m, and b_1, b_2 and b_3 are coefficients (b_1 = 3.633481, b_2 = -8.724372 and b_3 = 1.417380). The mean tree volume refers to the arithmetic average gross total volume per tree at the 0/0 utilization standard defined in Table 6.

Figure 15 shows the maximum mean tree volume–density line generated from [27] overlaid on the original mean tree volume and stand density observations. It may be worthwhile to note that the maximum density line shown in Figure 15 is not the same as the conventional "maximum density line" obtained from vaguely defined "fully-stocked" stands (Huang 2001).

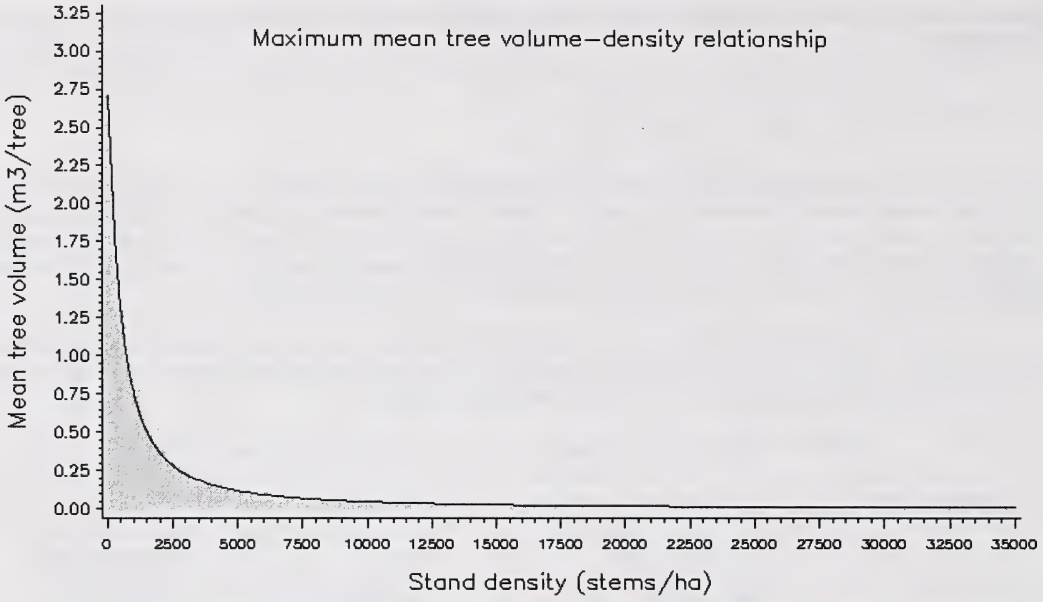


Figure 15. Maximum mean tree volume and stand density relationship for lodgepole pine in Alberta. Mean tree volume refers to the average gross total volume per tree (m^3/tree). Stand density refers to the number of trees per ha taller than 1.3 m. The maximum mean tree volume-density curve is described by equation [27]. Each dot in this graph represents an original volume-density observation from one sample plot.

Based on equation [27], for any stand with a known mean tree volume of *v* and a known density of N, the maximum density that this stand can support, N_{max}, can be obtained by re-writing equation [27] into:

$$[28] \qquad v = \frac{b_1}{1 + \exp[b_2 + b_3 \ln(N_{\max} + 200)]}$$

Isolating N_{max} from [28] gives:

$$[29] \qquad N_{\max} = \exp\left(\frac{[\ln(b_1 / v - 1) - b_2]}{b_3}\right) - 200$$

The RDI is defined as the ratio between the observed stand density of the subject stand and the maximum density attainable in a stand with the same mean tree volume as the subject stand:

$$[30] \qquad RDI = \frac{N}{N_{\max}} = \frac{N}{\exp\left(\frac{[\ln(b_1 / v - 1) - b_2]}{b_3}\right) - 200}$$

where N is the density (stems/ha) of the subject stand, *v* is the mean tree volume (m^3/tree) of the subject stand, and N_{max} is the maximum stand density attainable in a stand with the same mean tree volume as the subject stand. To calculate the RDI value for a subject stand, the mean tree volume and the density of the stand must be obtained. With the known mean tree volume, the maximum stand density attainable in a stand with the same mean tree volume as the subject stand is predicted from equation [29], and the RDI value is calculated from equation [30].

The RDI concept associates stand density with mean tree volume. It was used as the foundation for creating stand density management diagrams and developing commercial and pre-commercial thinning strategies (Drew and Flewelling 1979). If necessary, stand density management diagrams can be created based on the models developed in GYPSY.

As a general guide for lodgepole pine stands in Alberta, an RDI value of less than 0.20 commonly characterizes open-grown stands in which crown closure is unlikely to occur. An RDI value of 0.20 to 0.50 generally characterizes fully-stocked stands in which crown closure is very likely to occur. An RDI value of greater than 0.50 typically symbolizes over-stocked stands in which crown closure occurs, the competition-induced mortality increases, and the growth of individual trees slows down. An RDI value of equal to, or in rare cases, greater than 1.0 represents the maximum density attainable.

3.12 Average Diameter, Quadratic Mean Diameter and Total Basal Area

Average diameter (D) refers to the arithmetic average stand diameter for all trees taller than 1.3 m in the stand. Quadratic mean diameter (D_q) is defined as the diameter of the tree of mean basal area. Total basal area (BA) is defined as the cumulative cross-sectional area per ha, of tree stems measured at 1.3 m above ground. The relationship between D and D_q is determined by the spread of the individual diameter values within the stand. It can be expressed by:

$$[31] \quad D_q = \sqrt{\frac{1}{N}\sum_{i=1}^{N} DBH_i^2} = \sqrt{\left(\frac{N-1}{N}\right)s^2 + D^2}$$

where: D_q is the quadratic mean diameter (cm), DBH_i is the breast height diameter (cm) for the *i*th tree (i = 1, 2, 3, ..., N), N is the total number of trees, D is the arithmetic average stand diameter (cm), and s^2 is the sample variance of the DBH_i values calculated by:

$$[32] \quad s^2 = \frac{\sum_{i=1}^{N}(DBH_i - D)^2}{N-1}$$

If the individual diameter values within the stand are unknown, the following equation can be used as a good approximation for the relationship between D and D_q:

$$[33] \quad D_q = a + bD$$

where the coefficients are: a = 0.542314, and b = 1.003845. Equation [33] can be used to predict D_q when D is known. It can also be solved inversely to predict D when D_q is known:

$$[34] \quad D = \frac{D_q - a}{b}$$

The total basal area of a stand can be computed by:

$$[35] \quad BA = N \times \pi(D_q/200)^2 \quad or \quad BA = \frac{\pi}{40000}\sum_{i=1}^{N} DBH_i^2$$

where: BA = total basal area of a stand (m^2/ha), N = stand density (stems/ha), and $\pi \approx 3.14159265358979$.

3.13 Crown Area, Crown Width and Crown Radius

Assuming that the crowns of lodgepole pine trees are circular in shape, crown area refers to the circular area at the base of the live crown. It equals the ground area covered by a vertical projection of tree crown onto the ground. An equation was developed to predict the crown areas for seed-origin natural and regenerated lodgepole pine trees:

$$[36] \quad CA = \frac{1}{3} + aDBH^b$$

where CA is the crown area of the tree (m^2), DBH is the tree diameter at breast height (cm), a = 0.0285387 and b = 1.7647425.

The crown area prediction equation [36] has some limitations. Ideally, because stand density and site quality have considerable influence on crown development, a better predictive relationship could have been established if a stand density measure and a site quality measure were included in [36]. However, because most of the crown measurement data available in Alberta do not relate directly to density and site measures, an improved regression equation with the density and site effect incorporated into it cannot be established. Efforts are presently underway to collect density and site data. It is expected that a different crown area prediction model will be developed once more data are collected.

Since the crown area is assumed to be circular in shape, the following expression exists:

$$[37] \quad CA = \pi \times \left(\frac{CW}{2}\right)^2$$

where CA is the crown area (m^2) predicted from equation [36], and CW is the crown width (m) at the base of the live crown. Crown width is sometimes called crown diameter (m).

By re-arranging equation [37], an expression for CW can be obtained:

$$[38] \quad CW = 2 \times \sqrt{\frac{CA}{\pi}}$$

If crown radius is required, crown radius equals to the crown width divided by 2 (crown radius = CW/2).

3.14 Percent Crown Cover and Crown Closure Class

Percent crown cover is defined as the percentage of ground area covered by a vertical projection of tree crown areas onto the ground. It has also been frequently referred to as crown closure (CC) percent. Percent crown cover is a stand density measure commonly used in photo-based inventories such as the Alberta Vegetation Inventory (Alberta Environmental Protection 1991).

Once the crown area prediction equation [36] is established, and assuming that the impact of the over-lapping crowns is accounted for by [36], the CC value for a stand of N trees/ha can be computed by:

$$[39] \quad CC = \frac{CA_1 + CA_2 + \cdots + CA_N}{10000} \times 100\%$$

where CC is the percent crown cover, N is the stand density (stems/ha), CA_i is the crown area (m^2) for the *i*th tree (i = 1, 2, 3, ..., N), and 10000 (m^2) is the area of 1-ha. The CC value obtained from [39] can exceed 100% for dense, over-stocked stands.

The CC value computed from equation [39] represents an approximation of the true crown closure percent observed in a photo-based inventory. In order to obtain accurate CC values in a non-photo-based inventory, crown areas of the trees and the spatial distribution of these trees in the stand must be known. At this stage, however, GYPSY does not deal explicitly with the spatial distribution of individual trees in the stand, so an assumption about the spatial distribution of the trees in the stand was made. This assumption presumes that the impact of the over-lapping crowns is accounted for by equation [36]. This is undoubtedly a compromising assumption and one can find reasons and situations in which this assumption may not be valid, especially for stands growing at high densities. While Alberta has lots of data with measurements on every tree's azimuth and distance to plot centre available, and it is possible to develop a spatially explicit model based on these data, the spatial component is nevertheless ignored in this version of GYPSY for a number of reasons (Huang 2001).

In practice, the crown closure percent calculated according to equation [39] can be grouped into one of the five crown closure classes listed in Table 9. These crown closure classes were originally defined in the Alberta Vegetation Inventory (AVI). They are also routinely referred to as AVI stand density classes. In general, the A and B density classes are considered under-stocked and the C and D density classes are considered fully-stocked. A CC value of no more than 5% is considered non-forest.

Table 9. A classification of the crown closure classes.

Percent crown cover (CC)	Crown closure class (AVI density class)
$0 < CC\% \leq 5$	V (non-forest)
$5 < CC\% \leq 30$	A
$30 < CC\% \leq 50$	B
$50 < CC\% \leq 70$	C
$70 < CC\%$	D

3.15 Crown Competition Factor

Crown competition factor (CCF) is a stand density measure that is based on the vertical projection of the crown area of trees of a given diameter relative to the crown area for open-grown trees of the same diameter (Krajicek et al. 1961). It reflects the space occupied by the crown of an average tree in a stand in relation to the maximum space it could occupy if the tree were open-grown.

In order to calculate CCF, the relationship between crown width (CW) and tree diameter at breast height (DBH) must be established from the measurements of open-grown trees. Based on the established relationship, the maximum crown area (MCA), expressed as a percentage on a per ha basis, is calculated for every tree in a stand. The summation of all MCA values on a per ha basis provides the CCF value for the stand. Example calculations of CCF are shown in Krajicek et al. (1961), Clutter et al. (1983), and Avery and Burkhart (1994).

In GYPSY, the following relationship between crown area and tree diameter at breast height was established based on the measurements of open-grown lodgepole pine trees:

$$[40] \quad CA_{open} = \frac{1}{3} + aDBH^{b}$$

where CA_{open} is the crown area (m^2) of an open-grown tree assumed to have a circular crown shape, DBH is the tree diameter at breast height (cm), a = 0.303991, and b = 1.373733. Based on equation [40], the maximum crown area expressed as a percentage on a per ha basis, for a tree with a given diameter of DBH_i (i = 1, 2, 3, ..., N), can be calculated as follows:

$$[41] \quad MCA_i = \frac{CA_{open}}{10000} \times 100\% = \frac{1/3 + aDBH_i^{b}}{10000} \times 100\%$$

The CCF value for a stand of N trees/ha is obtained by summing up the MCA_i values calculated for each tree in the stand. In formula form, the expression for CCF is:

$$[42] \quad CCF = \sum_{i=1}^{N} MCA_i = \frac{\sum_{i=1}^{N} (1/3 + aDBH_i^{b})}{10000} \times 100\%$$

where CCF is the crown competition factor on a per ha basis, DBH_i is the tree diameter at breast height for the ith tree (i = 1, 2, 3, ..., N), and N is the number of trees per ha taller than 1.3 m.

Equation [40] can also be used to derive the maximum crown width for open-grown trees (CW_{open}). Since $CA_{open} = \pi(CW_{open}/2)^2$, the following expression can be derived:

$$[43] \quad CW_{open} = 2 \times \sqrt{\frac{CA_{open}}{\pi}}$$

The calculated CW_{open} from [43] can be compared to the CW from [38] to determine the impact of density and competition on crown development. If necessary, a crown competition index can be developed as the ratio between CW and CW_{open}.

As a general guide for lodgepole pine in Alberta, a CCF value of less than 100 often characterizes open-grown stands. Fully-stocked stands typically have an approximate CCF value between 180 and 250. At a CCF value of about 250 to 450, stand growth gradually slows down and thinning or selective cutting may be desirable. A CCF value of greater than 450 usually characterizes slow growth or repressed stands. The ability of lodgepole pine to respond to thinning or other forms of release is reduced substantially when CCF exceeds 450.

3.16 Height to Live Crown

Height to live crown is defined as the distance from the ground to the base of a tree's live crown. The following relationship was established to predict height to live crown:

$$[44] \quad HTC = \frac{Ht \times DBH}{b_0 Ht^{b_1} DBH^{b_2} BA^{b_3} N^{b_4} + DBH}$$

where: HTC = height to live crown (m), Ht = total tree height (m), BA = total stand basal area (m^2/ha), DBH = tree diameter at breast height (cm), and N = stand density (stems/ha). The estimated coefficients are: b_0 = 1.954221, b_1 = -1.125309, b_2 = 2.049099, b_3 = -0.601320, and b_4 = 0.118517.

3.17 Crown Length and Crown Ratio

Crown length (CL) refers to the length of the live crown. It is calculated as the difference between total tree height and height to live crown:

$$[45] \quad CL = Ht - HTC$$

where Ht is total tree height (m), and HTC is height to live crown (m) from [44].

Crown ratio (CR) of a tree is defined as the ratio between crown length and total tree height. It is computed by:

$$[46] \quad CR = \frac{CL}{Ht} = \frac{Ht - HTC}{Ht}$$

where CL is the crown length from [45] and HTC is the height to live crown from [44]. Crown ratio may also be expressed as a percentage value:

$$[47] \quad CR\% = \frac{CL}{Ht} \times 100\% = \frac{Ht - HTC}{Ht} \times 100\%$$

Since $0 \le HTC \le Ht$, it follows that $0 \le CR \le 1$, or $0\% \le CR\% \le 100\%$.

3.18 Slenderness Coefficient

Slenderness coefficient (SLC) of a tree refers to the ratio in percentage between tree height and tree diameter:

$$[48] \quad SLC_i = \frac{Ht_i}{DBH_i} \times 100\%$$

where SLC_i = slenderness coefficient for the *i*th tree (i = 1, 2, 3, ..., N), DBH_i = diameter at breast height for the *i*th tree (cm), and Ht_i = total height for the *i*th tree (m). An average slenderness coefficient for a stand of N trees/ha can be computed by:

$$[49] \quad SLC = \frac{1}{N} \sum_{i=1}^{N} SLC_i$$

where SLC is the average slenderness coefficient for the stand, and SLC_i is the slenderness coefficient for the *i*th tree in the stand (i = 1, 2, 3, ..., N). Slenderness coefficient is a quantity commonly associated with thinning and wind firmness studies (Navratil 1995; Wang et al. 1998).

3.19 Average Distance Between Trees and Spacing Index

Assuming that a square spacing is used, the average distance between trees can be computed as follows:

$$[50] \quad ADT = \sqrt{\frac{10000}{N}}$$

where ADT is the average distance between trees (m), 10000 (m^2) is the area of 1-ha, and N is the stand density (stems/ha).

Spacing index is also frequently referred to as relative spacing. It is defined as the ratio of average distance between trees to the average height of dominant and co-dominant trees in the stand. If a square spacing is assumed, spacing index or relative spacing (RS) can be computed by:

$$[51] \quad RS_{DC} = \frac{ADT}{H_{DC}} = \frac{\sqrt{10000/N}}{H_{DC}}$$

where: ADT is the average distance between trees (m), N is the stand density (stems/ha), and H_{DC} is the average height of dominant and co-dominant trees in the stand (m).

If top height is used, relative spacing can also be defined as the ratio of average distance between trees to top height:

$$[52] \quad RS_{TOP} = \frac{ADT}{H_{TOP}} = \frac{\sqrt{10000/N}}{H_{TOP}}$$

Both RS_{DC} and RS_{TOP} are used in GYPSY.

Relative spacing is a stand density measure developed from the phenomenon that stands judged to have a desirable stocking level shared similar relative spacing values, and all stands of a given species appear to gradually approach a common minimum value of relative spacing as they grow older (Clutter et al. 1983). By re-arranging [51] or [52], this common minimum value can be used to establish the maximum number of trees per ha to be expected at any given stand height or top height:

$$[53] \quad N = \frac{10000}{RS_{DC}^2 H_{DC}^2} \quad or \quad N = \frac{10000}{RS_{TOP}^2 H_{TOP}^2}$$

Beekhuis (1966) and Wilson (1979) found that relative spacing is quite valuable in predicting mortality and establishing thinning schedules. Parker (1978) showed that a combination of the height growth curve (e.g., the site index curve) and the relative spacing curve implicitly defines a mortality/survival curve.

3.20 Relative Density

Relative density (RD) is a stand density measure developed by Curtis et al. (1981):

$$[54] \quad RD = \frac{BA}{\sqrt{D_q}}$$

where BA is the total basal area of a stand (m^2/ha), and D_q is the quadratic mean diameter (cm). RD is the stand density measure used in the Douglas-fir stand simulator DFSIM. It is widely applied in several Pacific Northwest States.

4.0 Provincial and Ecoregion-based Average Yields for Seed-origin Natural and Regenerated Lodgepole Pine Stands

By using the provincial and regionalized models, GYPSY allows for the creation of provincial and regional yield relationships. Average lodgepole pine yields for the province as a whole and for four groups of natural subregions are presented here.

4.1 Grouping of the Natural Regions and Subregions

Natural regions and subregions of Alberta is a map-based classification of the major ecosystems in Alberta (Alberta Environmental Protection 1994). It is very similar to Ecoregions of Alberta. Based on the available data and the distribution ranges of lodgepole pine in Alberta, the natural regions and subregions of Alberta are classified into four broad groups shown in Table 10. With the increasing data collection effort and the continuously improving understanding of ecosystem management, it is expected that these groups will likely be refined in future applications.

Table 10. Groups of natural regions and subegions.

Group	Subregion	Group	Subregion
I (Upper Foothills)	10 — Upper Foothills	**IV** (Boreal Forests)	1 — Central Mixedwood
			2 — Dry Mixedwood
II (Lower Foothills)	11 — Lower Foothills		3 — Wetland Mixedwood
			4 — Sub-Arctic
III (Rocky Mountains)	7 — Alpine		5 — Peace River Lowlands
	8 — Sub-Alpine		6 — Boreal Highlands
	9 — Montane		

4.2 The Format for Yield Tables

Yield tables for seed-origin natural and regenerated lodgepole pine stands are shown in Appendix 1. A typical example of such a table, generated from a site index of 16 m and initial densities of 7000 and 7500 stems/ha, is provided in Table 11a. All variables listed in Table 11a are defined in Table 11b.

As illustrated in Table 11a, each yield table has the same title "Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands". Included in the two shaded lines of each table is the site index and the initial density of the stand. Site index in all tables refers to the top height at 50 years breast height age. Since the differences between natural and regenerated stands are by and large accounted for by the two variables (stand density and site index) incorporated into the models in GYPSY, each table applies to both seed-origin natural and seed-origin regenerated lodgepole pine stands.

The first column from the left-hand side of each table is the breast height age of the stand used in projection (bhage, years). It is arranged in 5-year intervals. The second column is the total age of the stand (totage, years). The conversions between bhage and totage are site-specific. They are determined by the top height-site index relationship (see Section 5.1 for the conversion table). Starting from the third column from the left are the variables associated with the four utilization standards defined in Table 6. Yield tables at other utilization standards can be obtained by modifying the stump height value and the minimum values for stump diameter, top diameter and merchantable length. The yield table generator ExcelGYPSY can be used to create yield tables at any user-specified utilization standard.

The yield tables displayed in Appendix 1 were generated from a combination of fifteen site indices and eighteen initial densities. They represent a small portion of the tables that can be generated from the models developed in GYPSY. Extrapolations of the yield relationships within the given ranges of site index and initial density can be made from the values listed in the tables. Two computer programs, one based on SAS and the other on Microsoft Visual Basic, can be used to generate yield tables at other combinations of site index, initial density and utilization standard.

Table 11a. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Utilization standard (Util. std.) = 0/0 (total volume)

Bh age	Total age	N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai
SI = 16 m Initial Density = 7000 stems/ha																												
5	12	6872	1.5	1.4	2.2	2.9	3.0	0.70	1.5	0.5	0.73	0.39	1.2	176	1.21	0.421	0.400	1.0	0.01	966	2986	57	27	A	M	0.0002	1.3	0.11
10	17	6579	3.0	2.8	3.6	4.6	4.9	0.81	2.1	1.3	0.61	0.52	4.6	135	1.23	0.269	0.253	2.7	0.05	1375	2986	107	35	B	M	0.0013	8.5	0.51
15	22	6161	4.3	4.0	4.9	6.3	6.7	0.93	2.4	2.2	0.51	0.70	9.0	126	1.27	0.203	0.190	4.3	0.10	1815	2986	153	43	B	M	0.0038	23.2	1.07
20	27	5669	5.5	5.2	6.2	7.9	8.4	1.05	2.7	3.2	0.45	0.91	13.7	122	1.33	0.169	0.157	5.8	0.16	2237	2986	191	51	C	M	0.0079	44.7	1.68
25	32	5149	6.7	6.3	7.4	9.3	10.0	1.18	2.9	4.1	0.41	1.13	18.1	119	1.39	0.150	0.139	7.0	0.22	2610	2986	221	58	C	M	0.0138	70.8	2.24
30	37	4638	7.8	7.4	8.5	10.6	11.5	1.30	3.1	5.0	0.38	1.38	22.2	117	1.47	0.138	0.128	7.9	0.27	2924	2986	242	64	C	M	0.0214	99.4	2.71
35	42	4157	8.9	8.4	9.6	11.8	12.8	1.41	3.3	5.8	0.36	1.65	25.6	115	1.55	0.131	0.121	8.6	0.31	3175	2986	256	68	C	M	0.0309	128.5	3.08
40	47	3720	9.9	9.4	10.6	12.9	14.0	1.53	3.5	6.6	0.34	1.93	28.5	113	1.64	0.127	0.117	9.1	0.35	3370	2986	265	72	D	M	0.0421	156.7	3.36
45	52	3330	10.9	10.3	11.5	13.9	15.0	1.64	3.7	7.3	0.33	2.22	30.8	111	1.73	0.124	0.115	9.4	0.38	3517	2986	269	74	D	M	0.0550	183.2	3.55
50	57	2986	11.8	11.3	12.3	14.8	16.0	1.74	3.9	8.0	0.32	2.52	32.7	109	1.83	0.123	0.114	9.5	0.40	3623	2986	269	75	D	M	0.0694	207.3	3.66
55	62	2686	12.7	12.2	13.1	15.7	16.9	1.85	4.0	8.6	0.31	2.83	34.1	108	1.93	0.123	0.114	9.6	0.42	3696	2986	268	76	D	M	0.0853	229.1	3.71
60	67	2425	13.6	13.0	13.8	16.4	17.7	1.95	4.2	9.2	0.31	3.14	35.2	106	2.03	0.124	0.115	9.6	0.44	3744	2986	265	76	D	M	0.1024	248.4	3.73
65	72	2199	14.5	13.9	14.5	17.1	18.4	2.05	4.4	9.7	0.31	3.46	36.1	105	2.13	0.125	0.116	9.5	0.45	3771	2986	261	76	D	M	0.1207	265.4	3.70
70	77	2001	15.3	14.7	15.1	17.7	19.1	2.14	4.5	10.2	0.30	3.79	36.7	103	2.24	0.126	0.117	9.4	0.46	3784	2986	256	76	D	M	0.1400	280.1	3.65
75	82	1830	16.1	15.4	15.7	18.3	19.7	2.23	4.7	10.6	0.30	4.11	37.1	102	2.34	0.128	0.119	9.3	0.47	3785	2986	250	75	D	M	0.1601	293.0	3.59
80	87	1680	16.8	16.2	16.2	18.9	20.2	2.32	4.8	11.0	0.30	4.44	37.4	101	2.44	0.129	0.121	9.1	0.47	3777	2986	245	75	D	M	0.1809	303.9	3.51
85	92	1549	17.6	16.9	16.7	19.4	20.7	2.40	5.0	11.3	0.30	4.76	37.6	100	2.54	0.131	0.123	9.0	0.47	3764	2986	239	74	D	M	0.2023	313.4	3.42
90	97	1434	18.3	17.6	17.2	19.8	21.2	2.48	5.1	11.7	0.30	5.09	37.7	98	2.64	0.133	0.125	8.8	0.48	3746	2986	234	73	D	M	0.2241	321.4	3.32
95	102	1332	19.0	18.3	17.6	20.2	21.6	2.56	5.3	12.0	0.30	5.41	37.7	97	2.74	0.135	0.127	8.7	0.48	3725	2986	229	72	D	M	0.2463	328.1	3.23
100	107	1243	19.7	19.0	18.0	20.6	22.0	2.64	5.4	12.2	0.30	5.73	37.7	96	2.84	0.137	0.129	8.5	0.48	3702	2986	224	71	D	M	0.2687	334.0	3.13
105	112	1163	20.3	19.6	18.4	21.0	22.4	2.71	5.5	12.5	0.30	6.05	37.6	95	2.93	0.140	0.131	8.4	0.48	3679	2986	219	70	D	M	0.2912	338.7	3.03
110	117	1093	20.9	20.2	18.8	21.3	22.7	2.78	5.7	12.7	0.30	6.36	37.6	94	3.02	0.142	0.133	8.2	0.48	3655	2986	214	70	C	M	0.3137	342.9	2.94
115	122	1029	21.5	20.8	19.1	21.7	23.1	2.85	5.8	12.9	0.31	6.67	37.4	93	3.12	0.144	0.135	8.1	0.48	3631	2986	210	69	C	M	0.3362	346.0	2.84
120	127	973	22.1	21.4	19.4	22.0	23.4	2.91	5.9	13.1	0.31	6.98	37.3	92	3.21	0.146	0.137	7.9	0.48	3609	2986	206	68	C	M	0.3586	348.9	2.75
125	132	922	22.7	21.9	19.7	22.3	23.6	2.97	6.0	13.2	0.31	7.28	37.2	90	3.29	0.148	0.139	7.8	0.48	3586	2986	202	67	C	M	0.3808	351.1	2.67
130	137	876	23.2	22.5	20.0	22.5	23.9	3.04	6.1	13.4	0.31	7.58	37.1	89	3.38	0.150	0.141	7.7	0.47	3565	2986	198	66	C	M	0.4029	352.9	2.58
135	142	835	23.7	23.0	20.3	22.8	24.2	3.09	6.2	13.5	0.31	7.87	36.9	88	3.46	0.152	0.143	7.6	0.47	3545	2986	194	66	C	M	0.4246	354.5	2.50
140	147	797	24.2	23.5	20.5	23.0	24.4	3.15	6.3	13.6	0.31	8.16	36.8	88	3.54	0.154	0.145	7.5	0.47	3527	2986	191	65	C	M	0.4459	355.4	2.42
145	152	763	24.7	24.0	20.8	23.2	24.6	3.21	6.4	13.7	0.32	8.45	36.7	87	3.62	0.156	0.147	7.4	0.47	3509	2986	188	64	C	M	0.4670	356.3	2.35
150	157	732	25.2	24.5	21.0	23.4	24.8	3.26	6.5	13.8	0.32	8.73	36.6	86	3.70	0.158	0.149	7.3	0.47	3493	2986	185	64	C	M	0.4877	357.0	2.28
155	162	703	25.7	24.9	21.2	23.6	25.0	3.31	6.6	13.9	0.32	9.00	36.4	85	3.77	0.160	0.151	7.2	0.47	3479	2986	182	63	C	M	0.5080	357.1	2.21
160	167	677	26.1	25.4	21.4	23.8	25.2	3.36	6.7	13.9	0.32	9.27	36.3	84	3.84	0.161	0.152	7.1	0.47	3465	2986	180	63	C	M	0.5279	357.4	2.14
165	172	653	26.6	25.8	21.6	24.0	25.4	3.41	6.8	14.0	0.32	9.54	36.2	83	3.91	0.163	0.154	7.0	0.47	3453	2986	177	62	C	M	0.5473	357.4	2.08
170	177	631	27.0	26.2	21.8	24.2	25.5	3.46	6.8	14.0	0.33	9.80	36.1	82	3.98	0.165	0.156	6.9	0.47	3443	2986	175	62	C	M	0.5664	357.4	2.02
175	182	611	27.4	26.6	22.0	24.3	25.7	3.50	6.9	14.1	0.33	10.06	36.0	81	4.05	0.166	0.157	6.9	0.47	3433	2986	173	61	C	M	0.5849	357.4	1.97
180	187	592	27.8	27.0	22.1	24.5	25.9	3.55	7.0	14.1	0.33	10.31	35.9	80	4.11	0.168	0.159	6.8	0.47	3425	2986	171	61	C	M	0.6030	357.0	1.91
SI = 16 m Initial Density = 7500 stems/ha																												
5	12	7359	1.5	1.4	2.2	2.9	3.0	0.70	1.5	0.5	0.73	0.39	1.2	179	1.17	0.407	0.387	1.0	0.01	1027	3130	60	29	A	M	0.0002	1.4	0.12
10	17	7035	2.9	2.7	3.6	4.6	4.9	0.81	2.0	1.3	0.60	0.52	4.7	136	1.19	0.260	0.244	2.8	0.05	1450	3130	112	36	B	M	0.0012	8.7	0.52
15	22	6574	4.2	4.0	4.9	6.3	6.7	0.93	2.4	2.2	0.51	0.69	9.3	127	1.23	0.197	0.184	4.5	0.11	1902	3130	159	45	B	M	0.0036	23.7	1.09
20	27	6033	5.4	5.1	6.2	7.8	8.4	1.05	2.7	3.2	0.45	0.89	14.1	123	1.29	0.164	0.153	6.0	0.17	2332	3130	199	54	C	M	0.0076	45.6	1.71
25	32	5465	6.6	6.2	7.4	9.3	10.0	1.17	2.9	4.1	0.40	1.11	18.6	120	1.35	0.145	0.135	7.3	0.22	2710	3130	229	61	C	M	0.0132	72.3	2.28
30	37	4908	7.7	7.3	8.5	10.6	11.5	1.28	3.1	5.0	0.37	1.35	22.7	118	1.43	0.134	0.124	8.2	0.28	3026	3130	251	66	C	M	0.0206	101.3	2.76
35	42	4388	8.7	8.3	9.5	11.8	12.8	1.40	3.3	5.8	0.35	1.61	26.3	115	1.51	0.128	0.118	8.9	0.32	3277	3130	265	71	D	M	0.0298	130.8	3.14
40	47	3916	9.7	9.3	10.5	12.9	14.0	1.51	3.5	6.6	0.34	1.89	29.2	114	1.60	0.124	0.114	9.3	0.36	3469	3130	273	74	D	M	0.0407	159.3	3.41
45	52	3497	10.7	10.2	11.4	13.9	15.0	1.62	3.6	7.3	0.33	2.17	31.5	112	1.69	0.121	0.112	9.6	0.39	3612	3130	277	76	D	M	0.0532	185.9	3.60
50	57	3130	11.6	11.1	12.2	14.8	16.0	1.73	3.8	8.0	0.32	2.47	33.4	110	1.79	0.121	0.112	9.8	0.41	3714	3130	277	77	D	M	0.0672	210.3	3.71
55	62	2810	12.6	12.0	13.0	15.6	16.9	1.83	4.0	8.6	0.31	2.77	34.8	108	1.89	0.121	0.112	9.8	0.43	3783	3130	275	78	D	M	0.0826	232.2	3.77
60	67	2533	13.4	12.9	13.7	16.4	17.7	1.93	4.1	9.1	0.31	3.08	35.9	107	1.99	0.121	0.112	9.8	0.45	3826	3130	272	78	D	M	0.0993	251.6	3.77
65	72	2292	14.3	13.7	14.4	17.1	18.4	2.03	4.3	9.6	0.30	3.40	36.7	105	2.09	0.122	0.114	9.7	0.46	3850	3130	267	78	D	M	0.1172	268.6	3.75
70	77	2083	15.1	14.5	15.0	17.7	19.1	2.12	4.5	10.1	0.30	3.72	37.3	104	2.19	0.124	0.115	9.6	0.47	3858	3130	262	77	D	M	0.1360	283.3	3.69
75	82	1902	15.9	15.3	15.6	18.3	19.7	2.21	4.6	10.5	0.30	4.04	37.7	103	2.29	0.125	0.117	9.5	0.47	3855	3130	256	77	D	M	0.1557	296.2	3.63
80	87	1744	16.7	16.0	16.1	18.8	20.2	2.30	4.8	10.9	0.30	4.36	38.0	101	2.39	0.127	0.118	9.3	0.48	3844	3130	250	76	D	M	0.1761	307.1	3.54
85	92	1606	17.4	16.7	16.6	19.3	20.7	2.38	4.9	11.3	0.30	4.68	38.2	100	2.50	0.129	0.120	9.1	0.48	3827	3130	245	75	D	M	0.1971	316.5	3.45
90	97	1485	18.1	17.4	17.1	19.8	21.2	2.46	5.1	11.6	0.30	5.00	38.2	99	2.59	0.131	0.122	9.0	0.48	3805	3130	239	74	D	M	0.2185	324.5	3.36
95	102	1379	18.8	18.1	17.5	20.2	21.6	2.54	5.2	11.9	0.30	5.32	38.2	98	2.69	0.133	0.125	8.8	0.48	3781	3130	233	73	D	M	0.2403	331.4	3.26
100	107	1285	19.5	18.8	17.9	20.6	22.0	2.61	5.3	12.2	0.30	5.63	38.2	96	2.79	0.135	0.127	8.7	0.48	3756	3130	228	72	D	M	0.2623	337.1	3.16
105	112	1201	20.1	19.4	18.3	21.0	22.4	2.69	5.5	12.4	0.30	5.95	38.1	95	2.89	0.138	0.129	8.5	0.48	3730	3130	223	71	D	M	0.2845	341.7	3.06
110	117	1127	20.7	20.0	18.7	21.3	22.7	2.76	5.6	12.7	0.30	6.26	38.0	94	2.98	0.140	0.131	8.3	0.48	3703	3130	218	71	D	M	0.3067	345.6	2.96
115	122	1061	21.3	20.6	19.0	21.6	23.1	2.82	5.7	12.9	0.30	6.57	37.9	93	3.07	0.142	0.133	8.2	0.48	3677	3130	213	70	C	M	0.3288	348.9	2.87
120	127	1002	21.9	21.2	19.3	21.9	23.4	2.89	5.8	13.0	0.31	6.87	37.7	92	3.16	0.144	0.135	8.1	0.48	3652	3130	209	69	C	M	0.3510	351.7	2.78
125	132	949	22.5	21.7	19.6	22.2	23.6	2.95	6.0	13.2	0.31	7.17	37.6	91	3.25	0.146	0.137	7.9	0.48	3627	3130	205	68	C	M	0.3729	353.9	2.69
130	137	901	23.0	22.3	19.9	22.5	23.9	3.01	6.1	13.3	0.31	7.46	37.4	90	3.33	0.148	0.139	7.8	0.48	3604	3130	201	67	C	M	0.3947	355.6	2.60
135	142	858	23.5	22.8	20.2	22.7	24.2	3.07	6.2	13.5	0.31	7.76	37.3	89	3.41	0.150	0.141	7.7	0.48	3582	3130	197	67	C	M	0.4161	357.0	2.52
140	147	818	24.0	23.3	20.4	23.0	24.4	3.13	6.3	13.6	0.31	8.04	37.1	88	3.50	0.152	0.143	7.6	0.48	3562	3130	194	66	C	M	0.4373	357.7	2.44
145	152	783	24.5	23.8	20.7	23.2	24.6	3.18	6.4	13.7	0.31	8.33	37.0	87	3.57	0.154	0.145	7.5	0.48	3542	3130	191	65	C	M	0.4582	358.8	2.37
150	157	750	25.0	24.3	20.9	23.4	24.8	3.24	6.5	13.8	0.32	8.60	36.9	86	3.65	0.156	0.147	7.4	0.47	3525	3130	188	65	C	M	0.4787	359.0	2.29
155	162	721	25.5	24.7	21.1	23.6	25.0	3.29	6.5	13.8	0.32	8.88	36.8	85	3.72	0.158	0.149	7.3	0.47	3508	3130	185	64	C	M	0.4989	359.7	2.22
160	167	693	25.9	25.2	21.3	23.8	25.2	3.34	6.6	13.9	0.32	9.15	36.6	84	3.80	0.160	0.151	7.2	0.47	3493	3130	182	63	C	M	0.5185	359.3	2.16
165	172	669	26.4	25.6	21.5	24.0	25.4	3.39	6.7	14.0	0.32	9.41	36.5	83	3.87	0.161	0.152	7.1	0.47	3480	3130	180	63	C	M	0.5378	359.8	2.10
170	177	646	26.8	26.0	21.7	24.1	25.5	3.43	6.8	14.0	0.32	9.67	36.4	82	3.93	0.163	0.154	7.0	0.47	3468	3130	178	62	C	M	0.5568	359.7	2.04
175	182	625	27.2	26.4	21.9	24.3	25.7	3.48	6.8	14.0	0.32	9.93	36.3	82	4.00	0.165	0.156	7.0	0.47	3457	3130	175	62	C	M	0.5752	359.5	1.98
180	187	605	27.6	26.8	22.0	24.5	25.9	3.52	6.9	14.1	0.33	10.18	36.2	81	4.07	0.166	0.157	6.9	0.47	3447	3130	173	62	C	M	0.5932	358.9	1.92

Bh age	Total age	Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 16 m Initial Density = 7000 stems/ha													
5	12	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	53	8.2	0.6	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	685	8.4	10.5	0.39	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	32	1668	8.8	34.2	1.08	24	12.8	1.3	0.04	2	14.0	0.1	0.00
30	37	2381	9.4	65.4	1.78	150	13.0	9.5	0.26	22	14.6	1.6	0.04
35	42	2725	10.0	98.5	2.36	410	13.4	29.7	0.71	105	14.9	8.5	0.20
40	47	2810	10.7	130.5	2.80	731	13.7	60.1	1.29	271	15.2	24.6	0.53
45	52	2745	11.4	160.3	3.10	1026	14.1	95.5	1.85	489	15.5	49.8	0.96
50	57	2603	12.1	187.1	3.30	1247	14.6	131.0	2.31	708	15.9	80.6	1.42
55	62	2431	12.9	211.0	3.42	1386	15.1	163.7	2.65	892	16.3	113.0	1.83
60	67	2252	13.6	232.0	3.48	1456	15.6	192.6	2.89	1028	16.7	144.4	2.17
65	72	2079	14.3	250.4	3.49	1474	16.1	217.5	3.03	1115	17.1	173.2	2.42
70	77	1917	15.1	266.2	3.47	1456	16.7	238.5	3.11	1161	17.6	198.5	2.59
75	82	1769	15.8	280.1	3.43	1417	17.2	256.4	3.14	1176	18.1	220.7	2.70
80	87	1636	16.5	291.8	3.37	1364	17.8	271.3	3.13	1169	18.6	239.6	2.76
85	92	1516	17.2	301.9	3.29	1305	18.3	283.9	3.10	1147	19.0	255.7	2.79
90	97	1409	17.8	310.5	3.21	1243	18.9	294.4	3.05	1115	19.5	269.3	2.79
95	102	1313	18.5	317.6	3.12	1182	19.4	303.1	2.98	1077	20.0	280.7	2.76
100	107	1229	19.1	323.9	3.04	1123	20.0	310.6	2.91	1037	20.5	290.5	2.72
105	112	1152	19.7	329.0	2.95	1067	20.5	316.6	2.84	996	21.0	298.5	2.67
110	117	1084	20.3	333.6	2.86	1015	21.0	322.0	2.76	956	21.5	305.6	2.62
115	122	1022	20.9	336.9	2.77	965	21.5	326.0	2.68	916	22.0	311.1	2.56
120	127	967	21.5	340.1	2.68	920	22.0	329.7	2.60	879	22.5	316.1	2.50
125	132	918	22.0	342.5	2.60	878	22.5	332.6	2.53	843	22.9	320.0	2.43
130	137	872	22.5	344.5	2.52	839	23.0	334.9	2.45	809	23.4	323.3	2.37
135	142	832	23.1	346.3	2.44	804	23.5	337.0	2.38	778	23.8	326.3	2.30
140	147	795	23.5	347.4	2.37	771	24.0	338.4	2.31	748	24.3	328.4	2.24
145	152	761	24.0	348.4	2.30	740	24.4	339.6	2.24	721	24.7	330.3	2.18
150	157	730	24.5	349.2	2.23	713	24.8	340.6	2.17	696	25.1	331.9	2.12
155	162	702	24.9	349.5	2.16	686	25.3	341.0	2.11	671	25.6	332.8	2.06
160	167	676	25.4	349.8	2.10	662	25.7	341.5	2.05	649	26.0	333.8	2.00
165	172	652	25.8	349.9	2.04	640	26.1	341.8	1.99	629	26.3	334.6	1.95
170	177	630	26.2	350.0	1.98	620	26.5	342.0	1.94	610	26.7	335.1	1.90
175	182	610	26.6	350.1	1.93	601	26.9	342.2	1.88	592	27.1	335.6	1.85
180	187	592	27.0	349.8	1.87	583	27.3	341.9	1.83	575	27.5	335.7	1.80
SI = 16 m Initial Density = 7500 stems/ha													
5	12	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	44	8.2	0.5	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	654	8.4	9.8	0.37	0	0.0	0.1	0.00	0	0.0	0.0	0.00
25	32	1671	8.8	33.5	1.06	20	12.7	1.1	0.03	0	0.0	0.0	0.00
30	37	2434	9.3	65.1	1.78	134	13.0	8.4	0.23	18	14.6	1.3	0.04
35	42	2815	9.9	98.8	2.37	386	13.3	27.7	0.66	92	14.9	7.4	0.18
40	47	2916	10.6	131.5	2.82	711	13.7	57.8	1.24	252	15.1	22.7	0.49
45	52	2854	11.3	161.7	3.13	1017	14.1	93.4	1.81	469	15.4	47.2	0.91
50	57	2709	12.0	189.0	3.34	1252	14.5	129.4	2.28	693	15.8	77.8	1.37
55	62	2530	12.7	213.2	3.46	1404	15.0	162.9	2.64	886	16.2	110.5	1.79
60	67	2343	13.5	234.6	3.52	1483	15.5	192.6	2.89	1031	16.6	142.4	2.14
65	72	2160	14.2	253.0	3.53	1507	16.0	218.0	3.04	1125	17.0	171.7	2.40
70	77	1990	14.9	269.0	3.51	1492	16.5	239.6	3.13	1178	17.5	197.8	2.58
75	82	1836	15.6	282.8	3.46	1454	17.1	257.8	3.16	1197	18.0	220.4	2.70
80	87	1696	16.3	294.6	3.40	1401	17.6	273.0	3.15	1193	18.4	239.8	2.77
85	92	1570	17.0	304.7	3.32	1341	18.2	285.8	3.12	1172	18.9	256.3	2.80
90	97	1458	17.7	313.3	3.24	1279	18.7	296.5	3.07	1141	19.4	270.2	2.80
95	102	1359	18.3	320.7	3.15	1216	19.3	305.5	3.00	1104	19.9	282.1	2.77
100	107	1269	18.9	326.8	3.06	1156	19.8	313.0	2.93	1063	20.4	291.9	2.74
105	112	1189	19.5	331.8	2.97	1097	20.3	319.0	2.86	1021	20.9	300.1	2.69
110	117	1117	20.1	336.1	2.88	1043	20.8	324.2	2.78	979	21.4	307.0	2.63
115	122	1053	20.7	339.7	2.79	992	21.4	328.4	2.70	939	21.8	312.8	2.57
120	127	996	21.3	342.7	2.71	945	21.9	332.0	2.62	900	22.3	317.7	2.51
125	132	944	21.8	345.1	2.62	902	22.4	334.9	2.54	864	22.8	321.9	2.44
130	137	897	22.3	347.0	2.54	861	22.8	337.2	2.47	829	23.2	325.2	2.38
135	142	855	22.8	348.7	2.46	825	23.3	339.2	2.39	797	23.7	328.1	2.32
140	147	815	23.4	349.5	2.38	790	23.8	340.4	2.32	766	24.1	330.0	2.25
145	152	781	23.8	350.7	2.31	759	24.2	341.8	2.25	738	24.5	332.1	2.19
150	157	748	24.3	351.1	2.24	729	24.7	342.4	2.19	711	25.0	333.4	2.13
155	162	720	24.7	351.9	2.18	703	25.1	343.3	2.12	687	25.4	334.8	2.07
160	167	692	25.2	351.7	2.11	677	25.5	343.3	2.06	663	25.8	335.3	2.01
165	172	668	25.6	352.3	2.05	655	25.9	344.0	2.00	643	26.2	336.5	1.96
170	177	645	26.0	352.2	1.99	634	26.3	344.1	1.95	623	26.5	336.9	1.91
175	182	624	26.4	352.1	1.94	614	26.7	344.1	1.89	605	26.9	337.4	1.86
180	187	605	26.8	351.6	1.88	596	27.1	343.7	1.84	587	27.3	337.3	1.81

Table 11b. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																									Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)

(1) — **Bhage**: breast height age of the stand (years)

(2) — **Totage**: total age of the stand (years)

(3) — **N**: total number of trees per ha taller than 1.3 m (stems/ha)

(4) — **D_q**: quadratic mean stand diameter (cm)

(5) — **D**: arithmetic average stand diameter (cm)

(6) — **H**: Average height of of all trees taller than 1.3 m (m)

(7) — **H_{DC}**: Stand height (average height of dominant and co-dominant trees, m)

(8) — **H_{TOP}**: top height (average height of the 100 largest DBH trees per ha, m)

(9) — **CW**: crown width or crown diameter (m)

(10) — **CLen**: crown length (m)

(11) — **HTC**: height to live crown (m)

(12) — **CR**: crown ratio

(13) — **CA**: crown area (m^2/tree)

(14) — **BA**: total stand basal area per ha (m^2/ha)

(15) — **SLC**: slenderness coefficient

(16) — **ADT**: Average distance between trees (m)

(17) — **RS_{DC}**: relative spacing (or spacing index) based on stand height

(18) — **RS_{TOP}**: relative spacing (or spacing index) based on top height

(19) — **RD**: relative density

(20) — **RDI**: relative density index

(21) — **SDI**: stand density index

(22) — **SDF**: stand density factor, defined as stems/ha at 50 years bhage

(23) — **CCF**: crown competition factor

(24) — **CC**: percent crown cover

(25) — **Den**: AVI crown closure class or density class (V, A, B, C, D)

(26) — **TPR**: Timber productivity rating

(27) — **V/tree**: gross total volume per tree (m^3/tree)

(28) — **V/ha**: gross total volume per ha (m^3/ha)

(29) — **Mai**: mean annual increment for gross total volume (m^3/ha/year)

(30) — **N**: merchantable stems per ha at 8/6 utilization standard (stems/ha)

(31) — **D**: average diameter at 8/6 utilization standard (cm)

(32) — **V/ha**: merchantable volume per ha at 8/6 utilization standard (m^3/ha)

(33) — **Mai**: mean annual increment at 8/6 utilization standard (m^3/ha/year)

(34) — **N**: merchantable stems per ha at 13/7 utilization standard (stems/ha)

(35) — **D**: average diameter at 13/7 utilization standard (cm)

(36) — **V/ha**: merchantable volume per ha at 13/7 utilization standard (m^3/ha)

(37) — **Mai**: mean annual increment at 13/7 utilization standard (m^3/ha/year)

(38) — **N**: merchantable stems per ha at 15/10 utilization standard (stems/ha)

(39) — **D**: average diameter at 15/10 utilization standard (cm)

(40) — **V/ha**: merchantable volume per ha at 15/10 utilization standard (m^3/ha)

(41) — **Mai**: mean annual increment at 15/10 utilization standard (m^3/ha/year)

The followings are more detailed definitions for the variables that appearing in the yield tables for seed-origin natural and regenerated lodgepole pine stands:

(1) — **Bhage**: breast height age of the stand (years).
(2) — **Totage**: total age of the stand (years).
(3) — **N**: stand density (stems/ha), defined as the total number of trees per ha taller than 1.3 m.
(4) — $\mathbf{D_q}$: quadratic mean stand diameter (cm), calculated by equation [31].
(5) — **D**: arithmetic average stand diameter (cm).
(6) — **H**: average height of all trees taller than 1.3 m (m).
(7) — $\mathbf{H_{DC}}$: stand height (m), defined as the average height of dominant and co-dominant trees.
(8) — $\mathbf{H_{TOP}}$: top height (m), defined as the average height of the 100 largest DBH trees per ha.
(9) — **CW**: crown width or crown diameter (m).
(10) — **CLen**: crown length (m), defined as the length of the live crown.
(11) — **HTC**: height to live crown (m), defined as the distance from the ground to the base of the live crown.
(12) — **CR**: crown ratio, defined as the ratio between crown length and total tree height.
(13) — **CA**: crown area (m^2/tree), defined as the circular area at the base of the live crown.
(14) — **BA**: total stand basal area per ha for trees taller than 1.3 m (m^2/ha).
(15) — **SLC**: slenderness coefficient (m/cm), defined as the ratio in percentage between tree height and tree diameter at breast height.
(16) — **ADT**: average distance between trees (m), calculated by equation [50].
(17) — $\mathbf{RS_{DC}}$: stand height based relative spacing, calculated by equation [51].
(18) — $\mathbf{RS_{TOP}}$: top height based relative spacing, calculated by equation [52].
(19) — **RD**: relative density, calculated by equation [54].
(20) — **RDI**: relative density index, defined as the ratio between the observed stand density of the subject stand and the maximum stand density attainable in a stand with the same mean tree volume as the subject stand. It is calculated by equation [30].
(21) — **SDI**: stand density index, defined as the expected number of trees per ha when the average stand diameter equals to 10 cm. It is calculated by equation [26].
(22) — **SDF**: stand density factor, defined as the stand density (stems/ha) at a reference bhage of 50 years. It can be solved numerically from equation [5].
(23) — **CCF**: crown competition factor, calculated according to equation [42]. It refers to the sum of the maximum crown areas, each expressed as a percentage of 1-ha, of all trees in the stand.
(24) — **CC**: crown cover expressed as a percentage, calculated by equation [39].
(25) — **Den**: AVI density class (or crown closure class), defined in Table 9.
(26) — **TPR**: timber productivity rating, defined at the bottom of Tables 1, 2 and 3.
(27) — **V/tree**: gross total volume per tree (m^3/tree).
(28) — **V/ha**: gross total volume per ha for all trees taller than 1.3 m (m^3/ha).
(29) — **Mai**: mean annual increment for gross total volume (m^3/ha/year).
(30) — **N**: number of merchantable stems per ha at 8/6 utilization standard (stems/ha).
(31) — **D**: arithmetic average stand diameter at 8/6 utilization standard (cm).
(32) — **V/ha**: merchantable volume per ha at 8/6 utilization standard (m^3/ha).
(33) — **Mai**: mean annual increment at 8/6 utilization standard (m^3/ha/year).
(34) — **N**: number of merchantable stems per ha at 13/7 utilization standard (stems/ha).
(35) — **D**: arithmetic average stand diameter at 13/7 utilization standard (cm).
(36) — **V/ha**: merchantable volume per ha at 13/7 utilization standard (m^3/ha).

(37) — **Mai**: mean annual increment at 13/7 utilization standard (m^3/ha/year).

(38) — **N**: number of merchantable stems per ha at 15/10 utilization standard (stems/ha).

(39) — **D**: arithmetic average stand diameter at 15/10 utilization standard (cm).

(40) — **V/ha**: merchantable volume per ha at 15/10 utilization standard (m^3/ha).

(41) — **Mai**: mean annual increment at 15/10 utilization standard (m^3/ha/year).

The exact specifications for the utilization standards shown in the yield tables are defined in Table 6. If necessary, other variables of interest that are not listed in the yield tables can be generated using the models developed in GYPSY.

To illustrate the use of the yield tables, assuming that on SI = 16 m, a regenerated lodgepole pine stand has an initial density of 7000 stems/ha. At bhage = 80 years, the volumes at 0/0, 8/6, 13/7 and 15/10 utilization standards are 303.9, 291.8, 271.3 and 239.6 (m^3/ha), respectively (see Table 11a).

To use the yield tables without knowing the site index and initial density, current density, top height and one of the three types of age (bhage, totage, stumpage) must be known. Assuming that the observed current stand density N = 1500 (stems/ha), H_{TOP} = 25.5 (m) and bhage = 100 (years). Based on these, site index can be approximated from Table 3 (SI $\approx$ 19 m), and initial density can be approximated from Table 4 and Figure 5 ($N_0 \approx$ 15000 stems/ha). With the known SI and N_0, volumes at different utilization standards and bhages can be approximated from the yield tables. Of course, the exact estimations can be obtained following the procedures described in Section 5.2. Other methods of using the yield tables and interpreting the results obtained from the yield tables are described in Huang (2001).

4.3 Average Yields for Seed-origin Natural and Regenerated Lodgepole Pine Stands

Average yields for seed-origin natural and regenerated lodgepole pine stands were obtained for the province as a whole, and for the four broad groups of subregions listed in Table 10. The following initial density (N_0) and site index (SI) values, approximated from the available data collected in existing stands, were used to generate the average yield relationships in different regions.

Average yields for seed-origin natural lodgepole pine stands

1). Provincial: N_0 = 7500 stems/ha and SI = 14 m (Appendix 1, Table A59).
2). Upper Foothills: N_0 = 8000 stems/ha and SI = 14 m (Table 12).
3). Lower Foothills: N_0 = 7000 stems/ha and SI = 16 m (Table 12).
4). Rocky Mountains: N_0 = 8500 stems/ha and SI = 11 m (Table 13).
5). Boreal Forests: N_0 = 5500 stems/ha and SI = 14 m (Table 13).

Average yields for seed-origin regenerated lodgepole pine stands

1). Provincial: N_0 = 7000 stems/ha and SI = 16 m (Appendix 1, Table A77).
2). Upper Foothills: N_0 = 7500 stems/ha and SI = 16 m (Table 14).
3). Lower Foothills: N_0 = 7000 stems/ha and SI = 17 m (Table 14).
4). Rocky Mountains: N_0 = 8000 stems/ha and SI = 13 m (Table 15).
5). Boreal Forests: N_0 = 5500 stems/ha and SI = 16 m (Table 15).

Since most models used in GYPSY were developed on the provincial level, the current version of GYPSY concentrates on a provincial basis. Only the expected average yield relationships are provided on regional bases. In cases where the average yields are needed for subregions that are not shown in Table 10, the yield relationships obtained at the provincial level are recommended for use.

To provide a quick look at how site index and initial density impact the yield relationships, several aggregated summary graphs, describing the yields of total volume and merchantable volumes at different utilization standards at some selected site indices and initial densities, are shown in Huang et al. (2001b). They provide a panoramic view of the yield relationships developed in GYPSY.

Table 12. Average yields for seed-origin **natural** lodgepole pine stands in the Upper Foothills (UFH) and Lower Foothills (LFH) regions.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
Region = UFH SI = 14 m Initial Density = 8000 stems/ha																																								
5	13	7881	1.3	1.2	2.1	2.6	2.8	0.69	1.4	0.5	0.74	0.38	1.0	192	1.13	0.428	0.408	0.9	0.01	1053	3759	58	30	A	M	0.0001	1.1	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	7603	2.6	2.4	3.2	4.1	4.3	0.78	1.9	1.1	0.62	0.48	4.0	141	1.15	0.280	0.265	2.5	0.04	1432	3759	106	37	B	M	0.0009	6.6	0.38	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	7196	3.7	3.5	4.4	5.5	5.9	0.88	2.2	1.9	0.53	0.62	7.9	130	1.18	0.213	0.201	4.1	0.09	1838	3759	151	45	B	M	0.0025	18.2	0.81	5	8.2	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	6704	4.8	4.5	5.5	6.9	7.3	0.98	2.5	2.7	0.47	0.78	12.2	125	1.22	0.178	0.166	5.6	0.14	2233	3759	190	52	C	M	0.0053	35.4	1.28	258	8.2	3.4	0.12	0	0.0	0.1	0.00	0	0.0	0.0	0.00
25	33	6169	5.8	5.5	6.5	8.1	8.7	1.08	2.7	3.5	0.43	0.96	16.4	122	1.27	0.156	0.146	6.8	0.19	2590	3759	221	59	C	M	0.0092	56.8	1.74	1053	8.5	17.4	0.53	3	12.4	0.1	0.00	0	0.0	0.0	0.00
30	38	5626	6.8	6.4	7.5	9.3	10.0	1.18	2.9	4.3	0.39	1.15	20.2	120	1.33	0.143	0.134	7.8	0.24	2895	3759	244	65	C	M	0.0144	80.9	2.15	1932	8.8	40.8	1.09	32	12.8	1.8	0.05	2	14.2	0.1	0.00
35	43	5101	7.7	7.3	8.5	10.4	11.1	1.28	3.1	5.0	0.37	1.35	23.7	118	1.40	0.135	0.126	8.5	0.29	3146	3759	261	69	C	M	0.0208	105.9	2.49	2552	9.3	68.7	1.61	145	13.0	9.1	0.21	20	14.6	1.4	0.03
40	48	4610	8.6	8.1	9.3	11.3	12.2	1.38	3.2	5.7	0.35	1.57	26.6	116	1.47	0.130	0.121	9.1	0.33	3346	3759	272	72	D	M	0.0284	130.7	2.75	2879	9.8	97.4	2.05	360	13.2	25.3	0.53	81	14.8	6.4	0.13
45	53	4162	9.4	8.9	10.1	12.2	13.1	1.48	3.4	6.4	0.34	1.80	29.0	114	1.55	0.127	0.118	9.5	0.36	3498	3759	278	75	D	M	0.0371	154.5	2.94	2986	10.3	125.0	2.38	634	13.5	49.5	0.94	205	15.0	17.9	0.34
50	58	3759	10.2	9.8	10.9	13.0	14.0	1.57	3.5	7.0	0.33	2.03	31.0	113	1.63	0.125	0.117	9.7	0.38	3612	3759	281	76	D	M	0.0470	176.7	3.07	2953	10.9	150.6	2.61	905	13.9	78.3	1.36	377	15.3	36.1	0.63
55	63	3400	11.0	10.5	11.6	13.8	14.8	1.66	3.7	7.5	0.32	2.28	32.6	111	1.71	0.124	0.116	9.8	0.40	3692	3759	281	77	D	M	0.0579	197.0	3.15	2842	11.5	173.9	2.78	1134	14.2	108.4	1.73	568	15.5	59.5	0.95
60	68	3083	11.8	11.3	12.2	14.5	15.5	1.75	3.8	8.0	0.32	2.52	33.8	109	1.80	0.124	0.116	9.8	0.42	3746	3759	279	78	D	M	0.0699	215.4	3.19	2691	12.1	194.6	2.88	1302	14.6	137.2	2.03	748	15.9	85.6	1.27
65	73	2803	12.6	12.0	12.8	15.1	16.2	1.83	4.0	8.5	0.31	2.78	34.8	108	1.89	0.125	0.117	9.8	0.43	3779	3759	275	78	D	M	0.0827	231.7	3.19	2523	12.7	213.0	2.93	1411	15.0	163.5	2.25	899	16.2	112.1	1.54
70	78	2557	13.3	12.7	13.4	15.7	16.8	1.91	4.1	8.9	0.31	3.03	35.5	107	1.98	0.126	0.118	9.7	0.44	3795	3759	271	78	D	M	0.0963	246.2	3.17	2355	13.3	229.1	2.95	1469	15.4	186.8	2.41	1014	16.5	137.6	1.77
75	83	2341	14.0	13.4	13.9	16.2	17.4	1.99	4.3	9.3	0.31	3.29	36.1	105	2.07	0.127	0.119	9.6	0.45	3799	3759	266	77	D	M	0.1106	259.0	3.14	2193	13.9	243.2	2.94	1489	15.8	207.0	2.51	1093	16.9	161.0	1.95
80	88	2150	14.7	14.1	14.4	16.7	17.9	2.07	4.4	9.7	0.31	3.56	36.5	104	2.16	0.129	0.121	9.5	0.45	3792	3759	260	76	D	M	0.1256	270.0	3.08	2040	14.5	255.4	2.92	1480	16.3	224.3	2.56	1142	17.3	182.0	2.08
85	93	1982	15.4	14.7	14.8	17.2	18.4	2.15	4.5	10.0	0.31	3.82	36.7	102	2.25	0.131	0.122	9.4	0.46	3778	3759	255	76	D	M	0.1411	279.7	3.02	1899	15.1	266.0	2.87	1451	16.7	239.0	2.58	1166	17.6	200.6	2.17
90	98	1833	16.0	15.4	15.3	17.6	18.8	2.22	4.7	10.4	0.31	4.08	36.9	101	2.34	0.132	0.124	9.2	0.46	3759	3759	249	75	D	M	0.1571	287.9	2.95	1769	15.7	275.1	2.82	1410	17.2	251.4	2.58	1170	18.0	216.7	2.22
95	103	1701	16.6	16.0	15.7	18.0	19.2	2.29	4.8	10.6	0.31	4.35	37.0	100	2.42	0.134	0.126	9.1	0.46	3736	3759	244	74	D	M	0.1734	295.0	2.88	1652	16.3	282.9	2.76	1362	17.6	262.0	2.55	1159	18.4	230.5	2.25
100	108	1584	17.2	16.6	16.0	18.4	19.6	2.36	4.9	10.9	0.31	4.61	37.0	99	2.51	0.136	0.128	8.9	0.46	3711	3759	238	73	D	M	0.1902	301.2	2.80	1546	16.9	289.6	2.69	1310	18.1	270.9	2.52	1139	18.8	242.4	2.25
105	113	1480	17.8	17.2	16.4	18.8	20.0	2.43	5.0	11.1	0.31	4.87	37.0	98	2.60	0.139	0.130	8.8	0.46	3684	3759	233	72	D	M	0.2070	306.4	2.72	1450	17.4	295.4	2.62	1257	18.5	278.6	2.47	1113	19.2	252.8	2.25
110	118	1386	18.4	17.7	16.7	19.1	20.3	2.49	5.2	11.4	0.31	5.14	36.9	96	2.69	0.141	0.132	8.6	0.46	3656	3759	228	71	D	M	0.2242	310.7	2.64	1362	17.9	300.1	2.55	1203	19.0	284.7	2.42	1081	19.6	261.3	2.22
115	123	1303	19.0	18.3	17.0	19.4	20.6	2.55	5.3	11.5	0.31	5.40	36.8	95	2.77	0.143	0.134	8.5	0.46	3627	3759	223	70	D	M	0.2414	314.5	2.57	1284	18.5	304.4	2.48	1152	19.4	290.2	2.37	1048	20.1	268.9	2.19
120	128	1228	19.5	18.8	17.3	19.7	20.9	2.62	5.4	11.7	0.31	5.65	36.7	94	2.85	0.145	0.136	8.3	0.46	3599	3759	218	69	C	M	0.2586	317.6	2.49	1212	19.0	307.8	2.41	1102	19.9	294.7	2.31	1014	20.5	275.3	2.16
125	133	1160	20.0	19.3	17.6	20.0	21.2	2.67	5.5	11.9	0.31	5.91	36.5	93	2.94	0.147	0.139	8.2	0.46	3571	3759	214	69	C	M	0.2759	320.1	2.41	1147	19.5	310.6	2.34	1054	20.3	298.3	2.25	979	20.9	280.5	2.12
130	138	1099	20.5	19.8	17.9	20.2	21.4	2.73	5.6	12.0	0.31	6.16	36.4	92	3.02	0.149	0.141	8.0	0.45	3545	3759	210	68	C	M	0.2933	322.3	2.34	1088	20.0	313.1	2.28	1010	20.7	301.4	2.19	945	21.2	285.1	2.07
135	143	1043	21.0	20.3	18.1	20.5	21.7	2.79	5.7	12.2	0.32	6.42	36.2	91	3.10	0.151	0.143	7.9	0.45	3519	3759	206	67	C	M	0.3105	323.8	2.27	1034	20.4	314.9	2.21	967	21.1	303.8	2.13	911	21.6	288.8	2.03
140	148	993	21.5	20.8	18.4	20.7	21.9	2.84	5.8	12.3	0.32	6.66	36.1	90	3.17	0.153	0.145	7.8	0.45	3494	3759	202	66	C	M	0.3276	325.3	2.20	986	20.9	316.6	2.15	928	21.6	306.0	2.07	880	22.0	292.1	1.98
145	153	947	22.0	21.2	18.6	20.9	22.1	2.89	5.9	12.4	0.32	6.91	35.9	89	3.25	0.156	0.147	7.7	0.45	3470	3759	198	65	C	M	0.3446	326.3	2.14	941	21.3	317.8	2.08	892	21.9	307.7	2.02	849	22.4	294.8	1.93
150	158	905	22.4	21.7	18.8	21.1	22.3	2.95	6.0	12.5	0.32	7.15	35.8	88	3.32	0.158	0.149	7.6	0.45	3448	3759	195	65	C	M	0.3613	327.0	2.07	900	21.8	318.7	2.02	857	22.4	309.0	1.96	820	22.8	297.0	1.88
155	163	866	22.9	22.1	19.0	21.3	22.5	2.99	6.1	12.5	0.32	7.40	35.6	87	3.40	0.160	0.151	7.4	0.44	3427	3759	192	64	C	M	0.3779	327.3	2.01	862	22.2	319.2	1.96	824	22.8	309.7	1.90	792	23.1	298.6	1.84
160	168	831	23.3	22.5	19.2	21.5	22.7	3.04	6.2	12.6	0.32	7.63	35.5	86	3.47	0.161	0.153	7.3	0.44	3407	3759	189	63	C	M	0.3943	327.7	1.96	827	22.6	319.7	1.91	795	23.1	310.6	1.85	766	23.5	300.1	1.79
165	173	799	23.7	23.0	19.4	21.7	22.9	3.09	6.2	12.7	0.33	7.87	35.4	85	3.54	0.163	0.155	7.3	0.44	3388	3759	186	63	C	M	0.4105	328.0	1.90	796	23.0	320.2	1.86	767	23.5	311.3	1.80	742	23.9	301.5	1.75
170	178	769	24.1	23.4	19.6	21.8	23.0	3.14	6.3	12.7	0.33	8.10	35.2	84	3.61	0.165	0.156	7.2	0.44	3371	3759	183	62	C	M	0.4265	328.0	1.85	766	23.4	320.3	1.80	741	23.9	311.6	1.75	718	24.2	302.3	1.70
175	183	742	24.5	23.8	19.7	22.0	23.2	3.18	6.4	12.8	0.33	8.33	35.1	84	3.67	0.167	0.158	7.1	0.44	3355	3759	181	62	C	M	0.4422	328.1	1.80	740	23.8	320.5	1.76	717	24.2	312.0	1.71	697	24.6	303.3	1.66
180	188	716	24.9	24.1	19.9	22.1	23.4	3.22	6.5	12.8	0.33	8.56	35.0	83	3.74	0.169	0.160	7.0	0.43	3341	3759	178	61	C	M	0.4575	327.6	1.75	714	24.2	320.2	1.71	694	24.6	311.8	1.66	676	24.9	303.6	1.62
Region = LFH SI = 16 m Initial Density = 7000 stems/ha																																								
5	12	6872	1.5	1.4	2.2	2.9	3.0	0.70	1.5	0.5	0.73	0.39	1.2	176	1.21	0.421	0.400	1.0	0.01	966	2986	57	27	A	M	0.0002	1.3	0.11	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	6579	3.0	2.8	3.6	4.6	4.9	0.81	2.1	1.3	0.61	0.52	4.6	135	1.23	0.269	0.253	2.7	0.05	1375	2986	107	35	B	M	0.0012	8.2	0.49	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	6161	4.3	4.0	4.9	6.3	6.7	0.93	2.4	2.2	0.51	0.70	9.0	126	1.27	0.203	0.190	4.3	0.10	1815	2986	153	43	B	M	0.0037	22.6	1.04	47	8.3	0.6	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	5669	5.5	5.2	6.2	7.9	8.4	1.05	2.7	3.2	0.45	0.91	13.7	122	1.33	0.169	0.157	5.8	0.16	2237	2986	191	51	C	M	0.0077	43.8	1.64	649	8.5	9.9	0.37	0	0.0	0.1	0.00	0	0.0	0.0	0.00
25	32	5149	6.7	6.3	7.4	9.3	10.0	1.18	2.9	4.1	0.41	1.13	18.1	119	1.39	0.150	0.139	7.0	0.21	2610	2986	221	58	C	M	0.0136	69.8	2.20	1619	8.9	33.1	1.05	22	12.8	1.2	0.04	2	14.0	0.1	0.00
30	37	4638	7.8	7.4	8.5	10.6	11.5	1.30	3.1	5.0	0.38	1.38	22.2	117	1.47	0.138	0.128	7.9	0.27	2924	2986	242	64	C	M	0.0212	98.3	2.68	2337	9.4	64.1	1.75	141	13.1	9.0	0.25	20	14.7	1.4	0.04
35	42	4157	8.9	8.4	9.6	11.8	12.8	1.41	3.3	5.8	0.36	1.65	25.6	115	1.55	0.131	0.121	8.6	0.31	3175	2986	256	68	C	M	0.0306	127.3	3.05	2692	10.0	97.1	2.33	391	13.4	28.5	0.68	99	14.9	8.0	0.19
40	47	3720	9.9	9.4	10.6	12.9	14.0	1.53	3.5	6.6	0.34	1.93	28.5	113	1.64	0.127	0.117	9.1	0.35	3370	2986	265	72	D	M	0.0418	155.5	3.33	2787	10.7	129.2	2.77	705	13.8	58.4	1.25	260	15.2	23.8	0.51
45	52	3330	10.9	10.3	11.5	13.9	15.0	1.64	3.7	7.3	0.33	2.22	30.8	111	1.73	0.124	0.115	9.4	0.38	3517	2986	269	74	D	M	0.0547	182.0	3.52	2729	11.4	159.1	3.08	998	14.2	93.5	1.81	473	15.6	48.5	0.94
50	57	2986	11.8	11.3	12.3	14.8	16.0	1.74	3.9	8.0	0.32	2.52	32.7	109	1.83	0.123	0.114	9.5	0.40	3623	2986	269	75	D	M	0.0691	206.3	3.64	2592	12.1	186.0	3.28	1220	14.6	128.9	2.27	689	15.9	78.9	1.39
55	62	2686	12.7	12.2	13.1	15.7	16.9	1.85	4.0	8.6	0.31	2.83	34.1	108	1.93	0.123	0.114	9.6	0.42	3696	2986	268	76	D	M	0.0849	228.1	3.70	2423	12.9	210.1	3.41	1362	15.1	161.8	2.62	873	16.3	111.3	1.80
60	67	2425	13.6	13.0	13.8	16.4	17.7	1.95	4.2	9.2	0.31	3.14	35.2	106	2.03	0.124	0.115	9.6	0.44	3744	2986	265	76	D	M	0.1021	247.6	3.71	2246	13.6	231.2	3.47	1435	15.6	190.9	2.86	1009	16.7	142.7	2.14
65	72	2199	14.5	13.9	14.5	17.1	18.4	2.05	4.4	9.7	0.31	3.46	36.1	105	2.13	0.125	0.116	9.5	0.45	3771	2986	261	76	D	M	0.1204	264.7	3.69	2075	14.4	249.8	3.49	1458	16.2	216.1	3.02	1099	17.2	171.7	2.40
70	77	2001	15.3	14.7	15.1	17.7	19.1	2.14	4.5	10.2	0.30	3.79	36.7	103	2.24	0.126	0.117	9.4	0.46	3784	2986	256	76	D	M	0.1397	279.5	3.65	1914	15.1	265.7	3.47	1443	16.7	237.4	3.10	1147	17.6	197.3	2.57
75	82	1830	16.1	15.4	15.7	18.3	19.7	2.23	4.7	10.6	0.30	4.11	37.1	102	2.34	0.128	0.119	9.3	0.46	3785	2986	250	75	D	M	0.1598	292.5	3.58	1767	15.8	279.6	3.42	1406	17.2	255.5	3.13	1164	18.1	219.6	2.69
80	87	1680	16.8	16.2	16.2	18.9	20.2	2.32	4.8	11.0	0.30	4.44	37.4	101	2.44	0.129	0.121	9.1	0.47	3777	2986	245	75	D	M	0.1807	303.5	3.50	1634	16.5	291.5	3.36	1356	17.8	270.6	3.12	1159	18.6	238.7	2.75
85	92	1549	17.6	16.9	16.7	19.4	20.7	2.40	5.0	11.3	0.30	4.76	37.6	100	2.54	0.131	0.123	9.0	0.47	3764	2986	239	74	D	M	0.2021	313.0	3.41	1515	17.2	301.6	3.29	1298	18.3	283.3	3.09	1138	19.1	254.9	2.78
90	97	1434	18.3	17.6	17.2	19.8	21.2	2.48	5.1	11.7	0.30	5.09	37.7	98	2.64	0.133	0.125	8.8	0.48	3746	2986	234	73	D	M	0.2240	321.2	3.32	1409	17.8	310.3	3.21	1238	18.9	294.0	3.04	1108	19.6	268.8	2.78
95	102	1332	19.0	18.3	17.6	20.2	21.6	2.56	5.3	12.0	0.30	5.41	37.7	97	2.74	0.135	0.127	8.7	0.48	3725	2986	229	72	D	M	0.2462	327.9	3.23	1313	18.5	317.5	3.12	1177	19.4	302.7	2.98	1071	20.1	280.2	2.76
100	107	1243	19.7	19.0	18.0	20.6	22.0	2.64	5.4	12.2	0.30	5.73	37.7	96	2.84	0.137	0.129	8.5	0.48	3702	2986	224	71	D	M	0.2685	333.8	3.13	1228	19.1	323.8	3.04	1120	20.0	310.4	2.91	1032	20.6	290.1	2.72
105	112	1163	20.3	19.6	18.4	21.0	22.4	2.71	5.5	12.5	0.30	6.05	37.6	95	2.93	0.140	0.131	8.4	0.48	3679	2986	219	70	D	M	0.2911	338.5	3.03	1151	19.7	328.9	2.95	1064	20.5	316.4	2.83	992	21.1	298.2	2.67
110	117	1093	20.9	20.2	18.8	21.3	22.7	2.78	5.7	12.7	0.30	6.36	37.6	94	3.02	0.142	0.133	8.2	0.48	3655	2986	214	70	C	M	0.3136	342.8	2.94	1084	20.3	333.5	2.86	1013	21.0	321.8	2.76	953	21.5	305.4	2.62
115	122	1029	21.5	20.8	19.1	21.7	23.1	2.85	5.8	12.9	0.31	6.67	37.4	93	3.12	0.144	0.135	8.1	0.48	3631	2986	210	69	C	M	0.3362	345.9	2.84	1022	20.9	336.8	2.77	963	21.6	325.8	2.68	913	22.0	310.8	2.55
120	127	973	22.1	21.4	19.4	22.0	23.4	2.91	5.9	13.1	0.31	6.98	37.3	92	3.21	0.146	0.137	7.9	0.48	3609	2986	206	68	C	M	0.3585	348.8	2.75	967	21.5	340.0	2.68	919	22.1	329.6	2.60	876	22.5	315.8	2.49
125	132	922	22.7	21.9	19.7	22.3	23.6	2.97	6.0	13.2	0.31	7.28	37.2	90	3.29	0.148	0.139	7.8	0.48	3586	2986	202	67	C	M	0.3807	351.0	2.67	917	22.0	342.4	2.60	877	22.6	332.4	2.52	841	23.0	319.8	2.43
130	137	876	23.2	22.5	20.0	22.5	23.9	3.04	6.1	13.4	0.31	7.58	37.1	89	3.38	0.150	0.141	7.7	0.47	3565	2986	198	66	C	M	0.4026	352.7	2.58	872	22.5	344.4	2.52	838	23.0	334.7	2.45	807	23.4	323.1	2.36
135	142	835	23.7	23.0	20.3	22.8	24.2	3.09	6.2	13.5	0.31	7.87	36.9	88	3.46	0.152	0.143	7.6	0.47	3545	2986	194	66	C	M	0.4243	354.3	2.50	832	23.1	346.1	2.44	803	23.5	336.8	2.38	777	23.9	326.1	2.30
140	147	797	24.2	23.5	20.5	23.0	24.4	3.15	6.3	13.6	0.31	8.16	36.8	88	3.54	0.154	0.145	7.5	0.47	3527	2986	191	65	C	M	0.4457	355.2	2.42	795	23.5	347.2	2.37	770	24.0	338.1	2.31	747	24.3	328.1	2.24
145	152	763	24.7	24.0	20.8	23.2	24.6	3.21	6.4	13.7	0.32	8.45	36.7	87	3.62	0.156	0.147	7.4	0.47	3509	2986	188	64	C	M	0.4667	356.1	2.35	761	24.0	348.2	2.30	740	24.4	339.4	2.24	720	24.7	330.1	2.18
150	157	732	25.2	24.5	21.0	23.4	24.8	3.26	6.5	13.8	0.32	8.73	36.6	86	3.70	0.158	0.149	7.3	0.47	3493	2986	185	64	C	M	0.4874	356.8	2.28	730	24.5	349.0	2.23	712	24.9	340.3	2.17	695	25.1	331.6	2.12
155	162	703	25.7	24.9	21.2	23.6	25.0	3.31	6.6	13.9	0.32	9.00	36.4	85	3.77	0.160	0.151	7.2	0.47	3479	2986	182	63	C	M	0.5075	356.8	2.21	702	24.9	349.2	2.16	686	25.3	340.7	2.11	671	25.6	332.6	2.06
160	167	677	26.1	25.4	21.4	23.8	25.2	3.36	6.7	13.9	0.32	9.27	36.3	84	3.84	0.161	0.152	7.1	0.47	3465	2986	180	63	C	M	0.5273	357.0	2.14	676	25.4	349.5	2.10	662	25.7	341.2	2.05	649	26.0	333.5	2.00
165	172	653	26.6	25.8	21.6	24.0	25.4	3.41	6.8	14.0	0.32	9.54	36.2	83	3.91	0.163	0.154	7.0	0.47	3453	2986	177	62	C	M	0.5467	357.0	2.08	652	25.8	349.6	2.04	640	26.1	341.4	1.99	628	26.4	334.1	1.95
170	177	631	27.0	26.2	21.8	24.2	25.5	3.46	6.8	14.0	0.32	9.80	36.1	82	3.98	0.165	0.156	6.9	0.47	3443	2986	175	62	C	M	0.5656	356.9	2.02	630	26.2	349.5	1.98	619	26.5	341.5	1.93	609	26.7	334.6	1.89
175	182	611	27.4	26.6	22.0	24.3	25.7	3.50	6.9	14.1	0.33	10.06	36.0	81	4.05	0.166	0.157	6.9	0.47	3433	2986	173	61	C	M	0.5841	356.9	1.96	610	26.6	349.6	1.92	601	26.9	341.6	1.88	591	27.1	335.0	1.84
180	187	592	27.8	27.0	22.1	24.5	25.9	3.55	7.0	14.1	0.33	10.31	35.9	80	4.11	0.168	0.159	6.8	0.46	3425	2986	171	61	C	M	0.6020	356.4	1.91	592	27.0	349.2	1.87	583	27.3	341.4	1.83	575	27.5	335.1	1.80

Table 13. Average yields for seed-origin **natural** lodgepole pine stands in the Rocky Mountains (RM) and Boreal Forests (BF) regions.

Bh age	Total age	N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	Util. std. = 8/6 N	D	V/ha	Mai	Util. std. = 13/7 N	D	V/ha	Mai	Util. std = 15/10 N	D	V/ha	Mai
		Utilization standard (Util. std.) = 0/0 (total volume)																																						
		Region = RM SI = 11 m Initial Density = 8500 stems/ha																																						
5	15	8423	1.0	1.0	1.9	2.3	2.4	0.68	1.3	0.4	0.76	0.36	0.7	218	1.09	0.473	0.455	0.7	0.01	1060	4963	54	31	B	F	0.0001	0.5	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	8237	2.1	2.0	2.8	3.4	3.5	0.74	1.7	0.9	0.66	0.44	2.9	151	1.10	0.325	0.311	2.0	0.03	1363	4963	93	36	B	F	0.0004	3.5	0.18	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	7954	3.0	2.8	3.7	4.5	4.7	0.82	2.0	1.4	0.58	0.53	5.8	135	1.12	0.251	0.239	3.3	0.06	1692	4963	132	42	B	F	0.0013	10.0	0.41	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	7594	3.9	3.7	4.5	5.5	5.8	0.89	2.2	2.0	0.52	0.64	9.1	129	1.15	0.209	0.199	4.6	0.10	2023	4963	167	49	B	F	0.0027	20.4	0.69	14	8.2	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	7179	4.7	4.4	5.3	6.4	6.8	0.97	2.4	2.7	0.47	0.76	12.5	125	1.18	0.183	0.173	5.8	0.14	2336	4963	198	55	C	F	0.0048	34.2	0.99	216	8.2	2.8	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	40	6733	5.5	5.1	6.1	7.4	7.8	1.05	2.6	3.3	0.43	0.89	15.9	123	1.22	0.166	0.157	6.8	0.18	2619	4963	224	60	C	F	0.0075	50.6	1.28	760	8.4	11.7	0.30	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	45	6274	6.2	5.8	6.8	8.2	8.7	1.12	2.7	3.9	0.41	1.03	19.0	121	1.26	0.154	0.145	7.6	0.22	2866	4963	244	65	C	F	0.0110	68.8	1.54	1458	8.6	27.0	0.61	9	12.6	0.5	0.01	0	0.0	0.0	0.00
40	50	5819	6.9	6.5	7.5	9.0	9.5	1.20	2.9	4.4	0.38	1.18	21.8	119	1.31	0.146	0.138	8.3	0.26	3076	4963	259	69	C	F	0.0151	87.8	1.77	2084	8.9	46.5	0.94	46	12.8	2.7	0.05	4	14.3	0.3	0.01
45	55	5379	7.6	7.2	8.2	9.7	10.3	1.27	3.0	5.0	0.37	1.33	24.3	118	1.36	0.141	0.133	8.8	0.29	3249	4963	270	72	D	F	0.0199	107.0	1.96	2541	9.3	67.9	1.24	135	13.0	8.7	0.16	18	14.6	1.3	0.02
50	60	4963	8.2	7.8	8.8	10.4	11.0	1.34	3.1	5.5	0.36	1.49	26.4	116	1.42	0.137	0.129	9.2	0.32	3389	4963	278	74	D	F	0.0253	125.8	2.11	2826	9.6	89.7	1.51	282	13.2	19.6	0.33	57	14.7	4.5	0.08
55	65	4575	8.9	8.4	9.3	11.0	11.7	1.41	3.2	5.9	0.35	1.65	28.3	115	1.48	0.135	0.127	9.5	0.35	3497	4963	282	75	D	F	0.0314	143.7	2.23	2968	10.0	110.8	1.72	471	13.4	35.3	0.55	129	14.9	10.9	0.17
60	70	4216	9.5	9.0	9.9	11.6	12.3	1.48	3.3	6.4	0.34	1.82	29.8	113	1.54	0.133	0.126	9.7	0.37	3580	4963	284	77	D	F	0.0381	160.6	2.31	3004	10.4	130.7	1.88	674	13.6	54.5	0.78	233	15.0	21.0	0.30
65	75	3888	10.1	9.6	10.4	12.1	12.8	1.55	3.5	6.8	0.33	1.99	31.1	112	1.60	0.133	0.125	9.8	0.39	3640	4963	284	77	D	F	0.0453	176.2	2.36	2969	10.9	149.0	2.00	870	13.8	75.6	1.01	360	15.2	34.6	0.46
70	80	3590	10.7	10.2	10.8	12.6	13.4	1.62	3.6	7.1	0.33	2.16	32.2	111	1.67	0.133	0.125	9.8	0.40	3681	4963	283	78	D	F	0.0531	190.5	2.39	2888	11.3	165.8	2.08	1041	14.1	97.2	1.22	496	15.4	50.9	0.64
75	85	3319	11.3	10.7	11.3	13.1	13.8	1.68	3.7	7.5	0.32	2.34	33.0	109	1.74	0.133	0.125	9.8	0.41	3707	4963	280	78	D	F	0.0613	203.4	2.40	2778	11.7	180.9	2.14	1180	14.4	118.1	1.40	630	15.6	68.8	0.81
80	90	3073	11.8	11.3	11.7	13.5	14.3	1.74	3.8	7.8	0.32	2.52	33.7	108	1.80	0.134	0.126	9.8	0.42	3720	4963	277	77	D	F	0.0699	214.9	2.40	2653	12.2	194.3	2.17	1285	14.6	137.7	1.54	751	15.9	87.3	0.97
85	95	2852	12.4	11.8	12.1	13.9	14.7	1.80	3.9	8.1	0.32	2.70	34.2	107	1.87	0.135	0.127	9.7	0.42	3723	4963	273	77	D	F	0.0790	225.3	2.38	2523	12.6	206.3	2.18	1358	14.9	155.6	1.65	855	16.1	105.6	1.12
90	100	2652	12.9	12.3	12.4	14.3	15.1	1.86	4.0	8.4	0.32	2.88	34.6	105	1.94	0.136	0.129	9.6	0.43	3717	4963	269	76	D	F	0.0884	234.5	2.36	2392	13.0	216.9	2.18	1404	15.2	171.6	1.72	940	16.4	123.1	1.24
95	105	2471	13.4	12.8	12.8	14.6	15.5	1.92	4.1	8.6	0.32	3.07	34.9	104	2.01	0.138	0.130	9.5	0.43	3706	4963	264	76	D	F	0.0982	242.6	2.32	2264	13.5	226.2	2.16	1428	15.5	185.9	1.78	1006	16.6	139.5	1.33
100	110	2308	13.9	13.3	13.1	15.0	15.8	1.98	4.2	8.9	0.32	3.26	35.1	103	2.08	0.139	0.132	9.4	0.44	3689	4963	259	75	D	F	0.1082	249.7	2.28	2142	13.9	234.4	2.14	1433	15.8	198.4	1.81	1054	16.9	154.6	1.41
105	115	2160	14.4	13.8	13.4	15.3	16.1	2.04	4.3	9.1	0.32	3.44	35.2	102	2.15	0.141	0.133	9.3	0.44	3668	4963	254	74	D	F	0.1184	255.8	2.23	2025	14.3	241.4	2.11	1424	16.2	209.3	1.83	1086	17.2	168.2	1.47
110	120	2026	14.9	14.3	13.7	15.6	16.4	2.09	4.4	9.3	0.32	3.63	35.3	100	2.22	0.143	0.135	9.1	0.44	3645	4963	249	74	D	F	0.1289	261.1	2.18	1916	14.7	247.6	2.07	1405	16.5	218.8	1.83	1104	17.4	180.3	1.51
115	125	1904	15.4	14.7	14.0	15.8	16.7	2.14	4.5	9.5	0.32	3.82	35.3	99	2.29	0.145	0.137	9.0	0.44	3620	4963	245	73	D	F	0.1395	265.7	2.13	1814	15.2	252.8	2.03	1378	16.8	226.9	1.82	1112	17.7	191.1	1.53
120	130	1794	15.8	15.2	14.2	16.1	17.0	2.20	4.6	9.6	0.32	4.01	35.3	98	2.36	0.147	0.139	8.9	0.43	3593	4963	240	72	D	F	0.1503	269.6	2.08	1719	15.6	257.4	1.99	1346	17.1	233.9	1.81	1111	18.0	200.7	1.55
125	135	1693	16.3	15.6	14.5	16.3	17.3	2.25	4.7	9.8	0.32	4.19	35.2	97	2.43	0.149	0.141	8.7	0.43	3566	4963	235	71	D	F	0.1612	272.9	2.03	1631	16.0	261.2	1.94	1311	17.4	239.8	1.78	1102	18.3	209.0	1.55
130	140	1601	16.7	16.0	14.7	16.6	17.5	2.30	4.8	9.9	0.32	4.38	35.2	96	2.50	0.151	0.143	8.6	0.43	3538	4963	231	70	D	F	0.1721	275.6	1.97	1549	16.4	264.5	1.90	1273	17.8	244.8	1.75	1089	18.6	216.3	1.55
135	145	1517	17.2	16.5	14.9	16.8	17.7	2.35	4.9	10.1	0.32	4.57	35.1	95	2.57	0.153	0.145	8.5	0.43	3510	4963	226	69	C	F	0.1831	277.8	1.92	1473	16.8	267.2	1.85	1234	18.1	249.0	1.72	1072	18.9	222.7	1.54
140	150	1441	17.6	16.9	15.1	17.0	17.9	2.39	5.0	10.2	0.32	4.76	35.0	94	2.63	0.155	0.147	8.3	0.43	3482	4963	222	69	C	F	0.1942	279.8	1.87	1404	17.2	269.6	1.80	1196	18.4	252.8	1.69	1052	19.1	228.3	1.53
145	155	1370	18.0	17.3	15.3	17.2	18.1	2.44	5.1	10.3	0.33	4.94	34.8	93	2.70	0.157	0.149	8.2	0.42	3455	4963	218	68	C	F	0.2053	281.2	1.82	1338	17.6	271.3	1.76	1158	18.7	255.7	1.65	1029	19.4	232.9	1.51
150	160	1306	18.4	17.7	15.5	17.4	18.3	2.49	5.2	10.4	0.33	5.13	34.7	92	2.77	0.159	0.151	8.1	0.42	3428	4963	214	67	C	F	0.2163	282.5	1.77	1279	17.9	272.9	1.71	1121	19.0	258.3	1.62	1006	19.7	237.0	1.49
155	165	1246	18.8	18.1	15.7	17.6	18.5	2.53	5.3	10.5	0.33	5.31	34.6	91	2.83	0.161	0.153	8.0	0.42	3402	4963	210	66	C	F	0.2273	283.2	1.72	1222	18.3	273.9	1.66	1084	19.3	260.2	1.58	982	20.0	240.5	1.46
160	170	1192	19.2	18.4	15.9	17.7	18.7	2.57	5.3	10.6	0.33	5.50	34.5	90	2.90	0.163	0.155	7.9	0.42	3377	4963	207	66	C	F	0.2383	284.0	1.67	1172	18.7	275.0	1.62	1049	19.7	262.0	1.55	958	20.3	243.6	1.44
165	175	1141	19.6	18.8	16.1	17.9	18.9	2.62	5.4	10.6	0.33	5.68	34.3	89	2.96	0.165	0.157	7.8	0.41	3353	4963	203	65	C	F	0.2492	284.3	1.63	1123	19.0	275.5	1.58	1015	20.0	263.2	1.51	933	20.6	246.0	1.41
170	180	1094	19.9	19.2	16.2	18.1	19.0	2.66	5.5	10.7	0.33	5.86	34.2	88	3.02	0.167	0.159	7.6	0.41	3329	4963	200	64	C	F	0.2600	284.4	1.58	1078	19.4	275.9	1.54	982	20.3	264.2	1.47	909	20.9	248.0	1.38
175	185	1051	20.3	19.5	16.4	18.2	19.2	2.70	5.6	10.7	0.34	6.04	34.0	87	3.08	0.169	0.161	7.6	0.41	3307	4963	197	63	C	F	0.2707	284.5	1.54	1037	19.7	276.2	1.50	952	20.6	265.0	1.44	886	21.1	249.9	1.35
180	190	1011	20.7	19.9	16.5	18.4	19.3	2.74	5.6	10.8	0.34	6.22	33.9	86	3.15	0.171	0.163	7.5	0.40	3286	4963	194	63	C	F	0.2813	284.4	1.50	999	20.1	276.3	1.46	922	20.9	265.5	1.40	863	21.4	251.3	1.33
		Region = BF SI = 14 m Initial Density = 5500 stems/ha																																						
5	13	5432	1.4	1.3	2.1	2.6	2.8	0.70	1.5	0.5	0.76	0.39	0.9	175	1.36	0.513	0.492	0.7	0.01	752	2874	44	21	A	M	0.0002	1.2	0.10	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	5272	2.9	2.7	3.3	4.1	4.3	0.80	2.1	1.1	0.65	0.51	3.4	132	1.38	0.335	0.319	2.0	0.04	1064	2874	82	27	A	M	0.0012	6.4	0.36	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	5036	4.1	3.9	4.5	5.5	5.9	0.91	2.5	1.8	0.56	0.67	6.7	123	1.41	0.254	0.240	3.3	0.08	1410	2874	118	34	B	M	0.0033	16.7	0.74	11	8.5	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	4746	5.3	4.9	5.7	6.9	7.3	1.03	2.7	2.7	0.50	0.86	10.3	119	1.45	0.210	0.198	4.5	0.12	1756	2874	150	41	B	M	0.0067	31.8	1.15	336	8.5	4.7	0.17	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	4423	6.3	6.0	6.7	8.2	8.7	1.14	3.0	3.5	0.45	1.06	14.0	117	1.50	0.184	0.173	5.5	0.16	2078	2874	177	47	B	M	0.0114	50.3	1.54	1086	8.8	19.2	0.59	8	12.8	0.4	0.01	0	0.0	0.0	0.00
30	38	4089	7.4	7.0	7.8	9.4	10.0	1.25	3.2	4.3	0.41	1.28	17.4	115	1.56	0.167	0.157	6.4	0.20	2364	2874	198	52	C	M	0.0173	70.9	1.89	1772	9.2	40.5	1.08	67	13.0	3.6	0.10	6	14.7	0.3	0.01
35	43	3758	8.3	7.9	8.7	10.4	11.1	1.35	3.4	5.1	0.39	1.51	20.5	114	1.63	0.156	0.147	7.1	0.24	2609	2874	213	57	C	M	0.0246	92.3	2.17	2199	9.7	64.3	1.51	225	13.3	13.6	0.32	40	14.9	2.6	0.06
40	48	3441	9.3	8.8	9.6	11.4	12.2	1.46	3.5	5.8	0.37	1.75	23.2	112	1.70	0.149	0.140	7.6	0.27	2812	2874	225	60	C	M	0.0330	113.5	2.38	2397	10.3	88.2	1.85	461	13.5	31.4	0.66	128	15.2	9.5	0.20
45	53	3145	10.2	9.7	10.4	12.3	13.1	1.56	3.7	6.5	0.36	2.01	25.5	111	1.78	0.145	0.136	8.0	0.30	2975	2874	232	63	C	M	0.0425	133.7	2.54	2441	10.9	111.1	2.11	715	13.9	54.6	1.04	271	15.4	22.3	0.42
50	58	2874	11.0	10.5	11.2	13.1	14.0	1.65	3.8	7.1	0.35	2.27	27.4	109	1.87	0.142	0.133	8.3	0.32	3104	2874	236	65	C	M	0.0531	152.6	2.65	2393	11.5	132.3	2.30	939	14.2	80.0	1.39	442	15.7	40.3	0.70
55	63	2628	11.9	11.3	11.9	13.9	14.8	1.75	4.0	7.7	0.34	2.53	29.0	108	1.95	0.140	0.132	8.4	0.34	3203	2874	238	67	C	M	0.0647	170.0	2.72	2294	12.1	151.6	2.42	1109	14.6	105.1	1.68	612	16.0	61.6	0.98
60	68	2407	12.7	12.1	12.6	14.6	15.5	1.84	4.2	8.2	0.33	2.80	30.3	106	2.04	0.140	0.131	8.5	0.35	3277	2874	238	68	C	M	0.0771	185.6	2.75	2172	12.8	168.8	2.50	1223	15.1	128.5	1.90	759	16.3	84.1	1.24
65	73	2209	13.4	12.8	13.2	15.2	16.2	1.93	4.3	8.7	0.33	3.08	31.3	105	2.13	0.140	0.131	8.5	0.36	3330	2874	237	68	C	M	0.0904	199.6	2.75	2041	13.4	184.1	2.54	1288	15.5	149.4	2.06	874	16.7	106.2	1.46
70	78	2032	14.2	13.6	13.8	15.8	16.8	2.01	4.4	9.1	0.32	3.36	32.1	104	2.22	0.140	0.132	8.5	0.37	3367	2874	235	68	C	M	0.1042	211.8	2.73	1910	14.1	197.6	2.55	1315	16.0	167.7	2.16	955	17.1	126.8	1.63
75	83	1875	14.9	14.3	14.3	16.4	17.4	2.10	4.6	9.5	0.32	3.64	32.7	102	2.31	0.141	0.133	8.5	0.38	3391	2874	232	68	C	M	0.1188	222.7	2.70	1785	14.7	209.4	2.54	1314	16.4	183.6	2.22	1008	17.5	145.6	1.76
80	88	1735	15.6	15.0	14.8	16.9	17.9	2.18	4.7	9.9	0.32	3.92	33.2	101	2.40	0.142	0.134	8.4	0.38	3404	2874	228	68	C	M	0.1338	232.2	2.65	1668	15.4	219.7	2.51	1294	16.9	197.2	2.25	1035	17.9	162.3	1.85
85	93	1610	16.3	15.7	15.3	17.3	18.4	2.25	4.9	10.2	0.32	4.20	33.6	100	2.49	0.144	0.136	8.3	0.39	3409	2874	224	68	C	M	0.1493	240.3	2.60	1559	16.0	228.6	2.47	1261	17.4	208.8	2.26	1043	18.3	177.0	1.91
90	98	1498	17.0	16.3	15.7	17.8	18.8	2.33	5.0	10.5	0.32	4.49	33.8	99	2.58	0.145	0.137	8.2	0.39	3407	2874	220	67	C	M	0.1651	247.3	2.53	1459	16.6	236.1	2.42	1219	17.9	218.6	2.24	1037	18.7	189.6	1.94
95	103	1399	17.6	16.9	16.1	18.2	19.2	2.40	5.1	10.8	0.32	4.77	34.0	97	2.67	0.147	0.139	8.1	0.39	3402	2874	216	67	C	M	0.1811	253.4	2.47	1369	17.2	242.8	2.37	1175	18.3	227.1	2.21	1022	19.1	200.7	1.96
100	108	1310	18.2	17.5	16.5	18.6	19.6	2.47	5.2	11.0	0.32	5.05	34.1	96	2.76	0.149	0.141	8.0	0.39	3392	2874	212	66	C	M	0.1974	258.6	2.40	1286	17.8	248.5	2.31	1128	18.8	234.2	2.18	1000	19.6	210.2	1.95
105	113	1230	18.8	18.1	16.9	18.9	20.0	2.54	5.4	11.3	0.32	5.33	34.2	95	2.85	0.151	0.143	7.9	0.39	3380	2874	208	66	C	M	0.2138	263.0	2.34	1211	18.3	253.3	2.25	1082	19.3	240.2	2.13	974	20.0	218.4	1.94
110	118	1159	19.4	18.7	17.2	19.2	20.3	2.60	5.5	11.5	0.32	5.60	34.3	94	2.94	0.153	0.145	7.8	0.39	3366	2874	205	65	C	M	0.2303	266.9	2.27	1144	18.9	257.5	2.19	1037	19.8	245.5	2.09	946	20.4	225.5	1.92
115	123	1094	20.0	19.3	17.5	19.6	20.6	2.67	5.6	11.7	0.32	5.88	34.2	93	3.02	0.155	0.147	7.7	0.39	3352	2874	201	64	C	M	0.2468	270.0	2.20	1082	19.4	261.0	2.13	993	20.2	249.7	2.04	915	20.8	231.4	1.89
120	128	1036	20.5	19.8	17.8	19.8	20.9	2.73	5.7	11.9	0.32	6.15	34.2	92	3.11	0.157	0.149	7.6	0.39	3337	2874	197	64	C	M	0.2633	272.8	2.14	1026	19.9	264.0	2.07	951	20.7	253.4	1.99	885	21.3	236.6	1.85
125	133	983	21.0	20.3	18.1	20.1	21.2	2.79	5.8	12.0	0.32	6.42	34.2	91	3.19	0.159	0.151	7.5	0.39	3321	2874	194	63	C	M	0.2797	274.9	2.07	975	20.4	266.4	2.01	912	21.1	256.4	1.93	855	21.7	240.9	1.82
130	138	935	21.6	20.8	18.4	20.4	21.4	2.85	5.9	12.2	0.32	6.69	34.1	90	3.27	0.161	0.153	7.3	0.39	3306	2874	191	63	C	M	0.2959	276.7	2.01	928	20.9	268.4	1.95	875	21.6	258.9	1.88	826	22.1	244.6	1.78
135	143	891	22.1	21.3	18.6	20.6	21.7	2.90	6.0	12.3	0.32	6.95	34.0	89	3.35	0.162	0.154	7.2	0.39	3291	2874	187	62	C	M	0.3121	278.1	1.95	885	21.4	270.0	1.89	840	22.0	260.9	1.83	797	22.5	247.5	1.74
140	148	852	22.5	21.8	18.9	20.8	21.9	2.96	6.1	12.4	0.33	7.21	34.0	88	3.43	0.164	0.156	7.2	0.39	3276	2874	185	61	C	M	0.3281	279.5	1.89	847	21.9	271.6	1.84	808	22.4	262.9	1.78	771	22.9	250.4	1.70
145	153	815	23.0	22.2	19.1	21.1	22.1	3.01	6.2	12.5	0.33	7.46	33.9	87	3.50	0.166	0.158	7.1	0.38	3263	2874	182	61	C	M	0.3438	280.2	1.84	811	22.3	272.5	1.79	777	22.9	264.0	1.73	745	23.3	252.5	1.65
150	158	782	23.5	22.7	19.3	21.3	22.3	3.06	6.3	12.6	0.33	7.72	33.8	86	3.58	0.168	0.160	7.0	0.38	3250	2874	179	60	C	M	0.3593	281.0	1.78	779	22.8	273.5	1.74	749	23.3	265.2	1.68	721	23.7	254.4	1.61
155	163	752	23.9	23.1	19.5	21.5	22.5	3.11	6.4	12.7	0.33	7.97	33.8	85	3.65	0.170	0.162	6.9	0.38	3238	2874	177	60	C	M	0.3747	281.8	1.73	749	23.2	274.3	1.69	723	23.7	266.3	1.64	698	24.0	256.1	1.58
160	168	724	24.3	23.6	19.7	21.7	22.7	3.16	6.4	12.7	0.33	8.21	33.7	84	3.72	0.172	0.164	6.8	0.38	3226	2874	174	59	C	M	0.3896	282.1	1.68	722	23.6	274.9	1.64	699	24.0	267.1	1.59	677	24.4	257.5	1.54
165	173	698	24.8	24.0	19.9	21.8	22.9	3.20	6.5	12.8	0.33	8.45	33.6	83	3.79	0.173	0.165	6.8	0.38	3216	2874	172	59	C	M	0.4044	282.3	1.64	696	24.0	275.1	1.59	676	24.4	267.5	1.55	656	24.8	258.4	1.50
170	178	674	25.2	24.4	20.1	22.0	23.0	3.25	6.6	12.8	0.34	8.69	33.5	83	3.85	0.175	0.167	6.7	0.38	3207	2874	170	59	C	M	0.4188	282.3	1.59	672	24.4	275.3	1.55	654	24.8	267.8	1.51	637	25.1	259.2	1.46
175	183	652	25.6	24.8	20.3	22.2	23.2	3.29	6.7	12.9	0.34	8.93	33.5	82	3.92	0.177	0.169	6.6	0.38	3198	2874	168	58	C	M	0.4331	282.4	1.55	651	24.8	275.4	1.51	635	25.2	268.1	1.47	619	25.5	259.9	1.42
180	188	632	26.0	25.1	20.4	22.3	23.4	3.34	6.7	12.9	0.34	9.16	33.4	81	3.98	0.178	0.170	6.6	0.38	3191	2874	166	58	C	M	0.4470	282.5	1.51	631	25.2	275.6	1.47	617	25.5	268.4	1.43	602	25.8	260.6	1.39

Table 14. Average yields for seed-origin **regenerated** lodgepole pine stands in the Upper Foothills (UFH) and Lower Foothills (LFH) regions.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
Region = UFH SI = 16 m Initial Density = 7500 stems/ha																																								
5	12	7359	1.5	1.4	2.2	2.9	3.0	0.70	1.5	0.5	0.73	0.39	1.2	179	1.17	0.407	0.387	1.0	0.01	1027	3130	60	29	A	M	0.0002	1.4	0.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	7035	2.9	2.7	3.6	4.6	4.9	0.81	2.0	1.3	0.60	0.52	4.7	136	1.19	0.260	0.244	2.8	0.05	1450	3130	112	36	B	M	0.0012	8.7	0.52	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	6574	4.2	4.0	4.9	6.3	6.7	0.93	2.4	2.2	0.51	0.69	9.3	127	1.23	0.197	0.184	4.5	0.11	1902	3130	159	45	B	M	0.0036	23.8	1.10	49	8.2	0.6	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	6033	5.4	5.1	6.2	7.8	8.4	1.05	2.7	3.2	0.45	0.89	14.1	123	1.29	0.164	0.153	6.0	0.17	2332	3130	199	54	C	M	0.0076	45.8	1.72	677	8.3	10.2	0.38	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	32	5465	6.6	6.2	7.4	9.3	10.0	1.17	2.9	4.1	0.40	1.11	18.6	120	1.35	0.145	0.135	7.3	0.22	2710	3130	229	61	C	M	0.0133	72.6	2.29	1697	8.7	34.2	1.08	20	12.7	1.1	0.03	0	0.0	0.0	0.00
30	37	4908	7.7	7.3	8.5	10.6	11.5	1.28	3.1	5.0	0.37	1.35	22.7	118	1.43	0.134	0.124	8.2	0.28	3026	3130	251	66	C	M	0.0207	101.7	2.77	2453	9.3	66.0	1.80	137	13.0	8.7	0.24	18	14.6	1.3	0.04
35	42	4388	8.7	8.3	9.5	11.8	12.8	1.40	3.3	5.8	0.35	1.61	26.3	115	1.51	0.128	0.118	8.9	0.32	3277	3130	265	71	D	M	0.0299	131.4	3.15	2828	9.9	99.8	2.39	394	13.3	28.4	0.68	96	14.8	7.8	0.19
40	47	3916	9.7	9.3	10.5	12.9	14.0	1.51	3.5	6.6	0.34	1.89	29.2	114	1.60	0.124	0.114	9.3	0.36	3469	3130	273	74	D	M	0.0409	160.0	3.43	2924	10.6	132.5	2.84	722	13.6	58.9	1.26	258	15.1	23.4	0.50
45	52	3497	10.7	10.2	11.4	13.9	15.0	1.62	3.6	7.3	0.33	2.17	31.5	112	1.69	0.121	0.112	9.6	0.39	3612	3130	277	76	D	M	0.0534	186.9	3.62	2859	11.3	162.9	3.15	1029	14.0	94.8	1.83	477	15.4	48.4	0.94
50	57	3130	11.6	11.1	12.2	14.8	16.0	1.73	3.8	8.0	0.32	2.47	33.4	110	1.79	0.121	0.112	9.8	0.42	3714	3130	277	77	D	M	0.0676	211.5	3.73	2713	12.0	190.3	3.36	1263	14.5	131.1	2.31	703	15.8	79.5	1.40
55	62	2810	12.6	12.0	13.0	15.6	16.9	1.83	4.0	8.6	0.31	2.77	34.8	108	1.89	0.121	0.112	9.8	0.43	3783	3130	275	78	D	M	0.0831	233.5	3.79	2532	12.7	214.7	3.48	1413	15.0	164.7	2.67	896	16.2	112.5	1.82
60	67	2533	13.4	12.9	13.7	16.4	17.7	1.93	4.1	9.1	0.31	3.08	35.9	107	1.99	0.121	0.112	9.8	0.45	3826	3130	272	78	D	M	0.0999	253.1	3.80	2345	13.4	236.1	3.54	1491	15.5	194.5	2.92	1040	16.6	144.7	2.17
65	72	2292	14.3	13.7	14.4	17.1	18.4	2.03	4.3	9.6	0.30	3.40	36.7	105	2.09	0.122	0.114	9.7	0.46	3850	3130	267	78	D	M	0.1179	270.3	3.77	2162	14.2	254.8	3.56	1513	16.0	220.0	3.07	1134	17.0	174.2	2.43
70	77	2083	15.1	14.5	15.0	17.7	19.1	2.12	4.5	10.1	0.30	3.72	37.3	104	2.19	0.124	0.115	9.6	0.47	3858	3130	262	77	D	M	0.1369	285.2	3.72	1991	14.9	270.9	3.53	1498	16.5	241.8	3.15	1185	17.5	200.3	2.61
75	82	1902	15.9	15.3	15.6	18.3	19.7	2.21	4.6	10.5	0.30	4.04	37.7	103	2.29	0.125	0.117	9.5	0.48	3855	3130	256	77	D	M	0.1568	298.2	3.65	1836	15.6	284.9	3.49	1458	17.1	260.1	3.18	1203	17.9	223.1	2.73
80	87	1744	16.7	16.0	16.1	18.8	20.2	2.30	4.8	10.9	0.30	4.36	38.0	101	2.39	0.127	0.118	9.3	0.48	3844	3130	250	76	D	M	0.1774	309.4	3.57	1696	16.3	296.8	3.42	1405	17.6	275.5	3.18	1198	18.4	242.6	2.80
85	92	1606	17.4	16.7	16.6	19.3	20.7	2.38	4.9	11.3	0.30	4.68	38.2	100	2.50	0.129	0.120	9.1	0.48	3827	3130	245	75	D	M	0.1986	318.9	3.48	1571	17.0	307.1	3.35	1344	18.2	288.3	3.14	1176	18.9	259.1	2.83
90	97	1485	18.1	17.4	17.1	19.8	21.2	2.46	5.1	11.6	0.30	5.00	38.2	99	2.59	0.131	0.122	9.0	0.49	3805	3130	239	74	D	M	0.2203	327.1	3.38	1458	17.7	315.8	3.27	1281	18.7	299.2	3.10	1144	19.4	273.2	2.83
95	102	1379	18.8	18.1	17.5	20.2	21.6	2.54	5.2	11.9	0.30	5.32	38.2	98	2.69	0.133	0.125	8.8	0.49	3781	3130	233	73	D	M	0.2423	334.1	3.29	1359	18.3	323.4	3.18	1218	19.2	308.3	3.03	1107	19.9	285.2	2.81
100	107	1285	19.5	18.8	17.9	20.6	22.0	2.61	5.3	12.2	0.30	5.63	38.2	96	2.79	0.135	0.127	8.7	0.49	3756	3130	228	72	D	M	0.2646	340.0	3.19	1270	18.9	329.7	3.09	1157	19.8	315.9	2.96	1065	20.4	295.1	2.77
105	112	1201	20.1	19.4	18.3	21.0	22.4	2.69	5.5	12.4	0.30	5.95	38.1	95	2.89	0.138	0.129	8.5	0.49	3730	3130	223	71	D	M	0.2870	344.7	3.09	1189	19.5	334.8	3.00	1098	20.3	322.0	2.88	1023	20.9	303.4	2.72
110	117	1127	20.7	20.0	18.7	21.3	22.7	2.76	5.6	12.7	0.30	6.26	38.0	94	2.98	0.140	0.131	8.3	0.49	3703	3130	218	71	D	M	0.3095	348.8	2.99	1118	20.1	339.2	2.91	1044	20.8	327.3	2.81	981	21.3	310.4	2.66
115	122	1061	21.3	20.6	19.0	21.6	23.1	2.82	5.7	12.9	0.30	6.57	37.9	93	3.07	0.142	0.133	8.2	0.49	3677	3130	213	70	C	M	0.3320	352.3	2.90	1054	20.7	343.0	2.82	993	21.4	331.8	2.73	940	21.8	316.4	2.60
120	127	1002	21.9	21.2	19.3	21.9	23.4	2.89	5.8	13.0	0.31	6.87	37.7	92	3.16	0.144	0.135	8.1	0.49	3652	3130	209	69	C	M	0.3544	355.1	2.80	996	21.3	346.1	2.73	946	21.9	335.5	2.65	902	22.3	321.4	2.54
125	132	949	22.5	21.7	19.6	22.2	23.6	2.95	6.0	13.2	0.31	7.17	37.6	91	3.25	0.146	0.137	7.9	0.48	3627	3130	205	68	C	M	0.3767	357.5	2.72	944	21.8	348.7	2.65	902	22.4	338.5	2.57	865	22.8	325.6	2.47
130	137	901	23.0	22.3	19.9	22.5	23.9	3.01	6.1	13.3	0.31	7.46	37.4	90	3.33	0.148	0.139	7.8	0.48	3604	3130	201	67	C	M	0.3988	359.3	2.63	897	22.3	350.8	2.57	862	22.8	340.9	2.49	830	23.2	329.1	2.41
135	142	858	23.5	22.8	20.2	22.7	24.2	3.07	6.2	13.5	0.31	7.76	37.3	89	3.41	0.150	0.141	7.7	0.48	3582	3130	197	67	C	M	0.4206	360.9	2.55	855	22.8	352.5	2.49	825	23.3	343.0	2.42	798	23.7	332.1	2.34
140	147	818	24.0	23.3	20.4	23.0	24.4	3.13	6.3	13.6	0.31	8.04	37.1	88	3.50	0.152	0.143	7.6	0.48	3562	3130	194	66	C	M	0.4422	361.7	2.47	815	23.4	353.5	2.41	790	23.8	344.3	2.35	766	24.1	334.1	2.28
145	152	783	24.5	23.8	20.7	23.2	24.6	3.18	6.4	13.7	0.31	8.33	37.0	87	3.57	0.154	0.145	7.5	0.48	3542	3130	191	65	C	M	0.4635	362.9	2.39	781	23.8	354.8	2.34	759	24.2	345.9	2.28	739	24.5	336.4	2.22
150	157	750	25.0	24.3	20.9	23.4	24.8	3.24	6.5	13.8	0.32	8.60	36.9	86	3.65	0.156	0.147	7.4	0.48	3525	3130	188	65	C	M	0.4844	363.3	2.32	748	24.3	355.4	2.27	729	24.7	346.6	2.21	712	24.9	337.8	2.16
155	162	721	25.5	24.7	21.1	23.6	25.0	3.29	6.5	13.8	0.32	8.88	36.8	85	3.72	0.158	0.149	7.3	0.48	3508	3130	185	64	C	M	0.5049	364.0	2.25	720	24.7	356.3	2.20	703	25.1	347.7	2.15	688	25.4	339.4	2.10
160	167	693	25.9	25.2	21.3	23.8	25.2	3.34	6.6	13.9	0.32	9.15	36.6	84	3.80	0.160	0.151	7.2	0.48	3493	3130	182	63	C	M	0.5251	363.9	2.18	692	25.2	356.2	2.14	678	25.5	347.8	2.09	664	25.8	339.9	2.04
165	172	669	26.4	25.6	21.5	24.0	25.4	3.39	6.7	14.0	0.32	9.41	36.5	83	3.87	0.161	0.152	7.1	0.48	3480	3130	180	63	C	M	0.5448	364.5	2.12	668	25.6	356.9	2.08	655	25.9	348.6	2.03	643	26.2	341.2	1.99
170	177	646	26.8	26.0	21.7	24.1	25.5	3.43	6.8	14.0	0.32	9.67	36.4	82	3.93	0.163	0.154	7.0	0.48	3468	3130	178	62	C	M	0.5641	364.4	2.06	645	26.0	357.0	2.02	634	26.3	348.8	1.97	623	26.5	341.8	1.93
175	182	625	27.2	26.4	21.9	24.3	25.7	3.48	6.8	14.0	0.32	9.93	36.3	82	4.00	0.165	0.156	7.0	0.48	3457	3130	175	62	C	M	0.5830	364.4	2.01	624	26.4	357.0	1.97	615	26.7	349.0	1.92	605	26.9	342.3	1.88
180	187	605	27.6	26.8	22.0	24.5	25.9	3.52	6.9	14.1	0.33	10.18	36.2	81	4.07	0.166	0.157	6.9	0.47	3447	3130	173	62	C	M	0.6015	363.9	1.95	605	26.8	356.6	1.91	596	27.1	348.6	1.87	587	27.3	342.3	1.83
Region = LFH SI = 17 m Initial Density = 7000 stems/ha																																								
5	11	6857	1.6	1.5	2.3	3.0	3.1	0.71	1.6	0.6	0.73	0.39	1.3	172	1.21	0.404	0.383	1.1	0.02	983	2805	59	27	A	G	0.0002	1.5	0.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	6531	3.1	2.9	3.7	4.8	5.2	0.82	2.1	1.4	0.59	0.54	5.0	133	1.24	0.255	0.240	2.8	0.06	1420	2805	112	35	B	G	0.0014	9.4	0.58	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	6072	4.5	4.2	5.2	6.7	7.1	0.95	2.5	2.4	0.50	0.73	9.8	125	1.28	0.193	0.180	4.6	0.11	1888	2805	160	45	B	G	0.0043	25.9	1.22	95	8.3	1.2	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	5542	5.8	5.5	6.5	8.3	9.0	1.08	2.8	3.4	0.44	0.96	14.8	121	1.34	0.161	0.149	6.1	0.17	2331	2805	199	53	C	G	0.0090	49.8	1.89	883	8.5	14.4	0.55	2	12.4	0.1	0.00	0	0.0	0.0	0.00
25	31	4991	7.0	6.7	7.8	9.9	10.7	1.21	3.0	4.4	0.40	1.21	19.5	118	1.42	0.143	0.132	7.3	0.23	2718	2805	228	60	C	G	0.0158	78.8	2.52	1888	9.0	42.5	1.36	45	12.9	2.6	0.08	4	14.4	0.2	0.01
30	36	4460	8.2	7.8	9.0	11.3	12.2	1.34	3.2	5.4	0.37	1.48	23.6	116	1.50	0.132	0.122	8.2	0.28	3037	2805	249	66	C	G	0.0247	110.1	3.03	2523	9.6	77.2	2.13	223	13.2	15.0	0.41	41	14.8	3.1	0.09
35	41	3969	9.3	8.9	10.1	12.6	13.6	1.47	3.4	6.2	0.35	1.77	27.2	114	1.59	0.126	0.117	8.9	0.33	3289	2805	262	70	D	G	0.0357	141.6	3.43	2778	10.3	113.1	2.74	536	13.6	41.6	1.01	164	15.1	14.1	0.34
40	46	3529	10.4	9.9	11.1	13.7	14.9	1.59	3.6	7.0	0.33	2.08	30.0	112	1.68	0.123	0.113	9.3	0.37	3481	2805	269	74	D	G	0.0487	171.9	3.71	2791	11.1	147.3	3.18	876	14.0	77.9	1.68	373	15.4	36.5	0.79
45	51	3141	11.4	10.9	12.1	14.8	16.0	1.70	3.8	7.8	0.32	2.40	32.3	110	1.78	0.121	0.112	9.6	0.40	3622	2805	272	76	D	G	0.0637	200.0	3.90	2677	11.9	178.6	3.48	1156	14.5	117.2	2.29	614	15.8	67.8	1.32
50	56	2805	12.4	11.9	13.0	15.7	17.0	1.82	4.0	8.5	0.31	2.74	34.1	109	1.89	0.120	0.111	9.7	0.42	3722	2805	272	77	D	G	0.0804	225.6	4.01	2507	12.6	206.7	3.67	1345	15.0	155.0	2.75	832	16.2	103.3	1.84
55	61	2514	13.4	12.8	13.8	16.6	17.9	1.93	4.2	9.1	0.31	3.07	35.5	107	1.99	0.120	0.111	9.7	0.44	3789	2805	269	77	D	G	0.0988	248.3	4.05	2319	13.4	231.4	3.78	1447	15.5	188.8	3.08	999	16.6	138.9	2.27
60	66	2263	14.3	13.8	14.5	17.4	18.7	2.03	4.3	9.7	0.30	3.42	36.6	105	2.10	0.121	0.112	9.7	0.46	3831	2805	265	77	D	G	0.1186	268.4	4.05	2133	14.2	253.1	3.82	1483	16.1	218.0	3.29	1108	17.1	171.9	2.59
65	71	2047	15.2	14.6	15.2	18.1	19.5	2.14	4.5	10.2	0.30	3.77	37.3	104	2.21	0.122	0.113	9.6	0.47	3854	2805	261	77	D	G	0.1397	286.0	4.01	1958	15.0	271.9	3.81	1474	16.7	242.8	3.41	1169	17.6	201.4	2.83
70	76	1860	16.1	15.5	15.9	18.7	20.2	2.23	4.7	10.7	0.30	4.12	37.9	103	2.32	0.124	0.115	9.4	0.48	3862	2805	255	77	D	G	0.1619	301.1	3.95	1798	15.8	288.0	3.78	1435	17.2	263.5	3.45	1190	18.1	226.8	2.97
75	81	1698	16.9	16.3	16.5	19.3	20.8	2.33	4.8	11.2	0.30	4.48	38.2	101	2.43	0.126	0.117	9.3	0.48	3859	2805	249	76	D	G	0.1850	314.1	3.86	1654	16.6	301.8	3.71	1380	17.8	280.9	3.46	1185	18.6	248.6	3.06
80	86	1558	17.7	17.1	17.0	19.9	21.3	2.42	5.0	11.6	0.30	4.83	38.5	100	2.53	0.127	0.119	9.1	0.49	3849	2805	244	75	D	G	0.2088	325.3	3.77	1526	17.3	313.7	3.64	1317	18.5	295.5	3.42	1161	19.2	267.0	3.09
85	91	1436	18.5	17.9	17.5	20.4	21.9	2.51	5.1	11.9	0.30	5.19	38.6	99	2.64	0.129	0.121	9.0	0.49	3833	2805	238	74	D	G	0.2331	334.8	3.67	1413	18.0	323.8	3.55	1252	19.1	307.7	3.37	1127	19.7	282.5	3.09
90	96	1329	19.3	18.6	18.0	20.9	22.3	2.59	5.3	12.3	0.30	5.54	38.7	97	2.74	0.132	0.123	8.8	0.49	3813	2805	233	74	D	G	0.2579	342.8	3.56	1312	18.7	332.3	3.45	1187	19.6	317.8	3.30	1086	20.3	295.5	3.07
95	101	1235	20.0	19.3	18.5	21.3	22.8	2.67	5.4	12.6	0.30	5.88	38.7	96	2.85	0.134	0.125	8.7	0.50	3792	2805	227	73	D	G	0.2831	349.6	3.45	1222	19.4	339.5	3.35	1124	20.2	326.2	3.22	1042	20.8	306.3	3.02
100	106	1152	20.7	20.0	18.9	21.7	23.2	2.75	5.6	12.9	0.30	6.23	38.6	95	2.95	0.136	0.127	8.5	0.50	3768	2805	222	72	D	G	0.3082	355.1	3.34	1142	20.1	345.4	3.25	1064	20.8	333.2	3.13	998	21.3	315.4	2.97
105	111	1079	21.3	20.6	19.3	22.1	23.6	2.83	5.7	13.1	0.30	6.57	38.5	94	3.04	0.138	0.129	8.3	0.50	3745	2805	217	71	D	G	0.3335	359.9	3.23	1071	20.7	350.5	3.15	1009	21.4	339.1	3.05	954	21.9	323.0	2.90
110	116	1014	22.0	21.3	19.7	22.4	23.9	2.90	5.8	13.3	0.30	6.91	38.4	93	3.14	0.140	0.131	8.2	0.50	3721	2805	212	70	D	G	0.3589	363.9	3.13	1008	21.4	354.7	3.05	957	21.9	343.9	2.96	912	22.4	329.3	2.83
115	121	956	22.6	21.9	20.0	22.7	24.3	2.97	6.0	13.5	0.30	7.24	38.3	92	3.23	0.142	0.133	8.1	0.50	3698	2805	208	69	C	G	0.3839	367.0	3.03	951	22.0	358.2	2.95	910	22.5	347.8	2.87	872	22.9	334.6	2.76
120	126	904	23.2	22.5	20.3	23.1	24.6	3.03	6.1	13.7	0.30	7.57	38.2	91	3.33	0.144	0.135	7.9	0.50	3676	2805	204	68	C	G	0.4088	369.6	2.93	900	22.5	360.9	2.86	866	23.0	351.0	2.78	835	23.4	338.9	2.68
125	131	858	23.8	23.0	20.6	23.3	24.8	3.10	6.2	13.9	0.31	7.89	38.1	90	3.41	0.146	0.137	7.8	0.50	3654	2805	200	68	C	G	0.4334	371.9	2.83	855	23.1	363.4	2.77	826	23.5	353.8	2.69	800	23.9	342.7	2.61
130	136	816	24.3	23.6	20.9	23.6	25.1	3.16	6.3	14.0	0.31	8.21	37.9	89	3.50	0.148	0.139	7.7	0.50	3634	2805	197	67	C	G	0.4577	373.5	2.74	814	23.6	365.2	2.68	790	24.0	355.9	2.61	767	24.4	345.6	2.54
135	141	778	24.9	24.1	21.2	23.9	25.4	3.22	6.4	14.1	0.31	8.52	37.8	88	3.59	0.150	0.141	7.6	0.49	3616	2805	193	66	C	G	0.4816	374.7	2.65	776	24.2	366.5	2.59	756	24.5	357.5	2.53	737	24.8	348.0	2.46
140	146	744	25.4	24.6	21.5	24.1	25.6	3.28	6.5	14.2	0.31	8.82	37.6	87	3.67	0.152	0.143	7.5	0.49	3598	2805	190	66	C	G	0.5051	375.8	2.57	743	24.7	367.8	2.51	725	25.0	358.9	2.45	709	25.3	350.1	2.39
145	151	713	25.9	25.1	21.7	24.3	25.8	3.34	6.6	14.3	0.31	9.13	37.5	86	3.75	0.154	0.145	7.4	0.49	3583	2805	187	65	C	G	0.5281	376.5	2.49	712	25.2	368.6	2.44	697	25.5	360.0	2.38	683	25.7	351.7	2.32
150	156	685	26.4	25.6	21.9	24.5	26.0	3.39	6.7	14.4	0.31	9.42	37.4	85	3.82	0.156	0.147	7.3	0.49	3568	2805	184	65	C	G	0.5507	377.2	2.41	684	25.6	369.4	2.36	671	25.9	360.9	2.31	659	26.2	353.1	2.26
155	161	659	26.8	26.1	22.2	24.7	26.2	3.44	6.8	14.5	0.32	9.71	37.3	84	3.90	0.157	0.149	7.2	0.49	3555	2805	182	64	C	G	0.5727	377.4	2.34	658	26.1	369.7	2.29	647	26.4	361.3	2.24	636	26.6	354.0	2.19
160	166	635	27.3	26.5	22.4	24.9	26.4	3.49	6.9	14.6	0.32	9.99	37.2	83	3.97	0.159	0.150	7.1	0.49	3544	2805	179	63	C	G	0.5942	377.3	2.27	634	26.6	369.7	2.22	625	26.8	361.5	2.17	615	27.0	354.5	2.13
165	171	614	27.7	27.0	22.6	25.1	26.6	3.54	6.9	14.6	0.32	10.27	37.1	82	4.04	0.161	0.152	7.0	0.49	3533	2805	177	63	C	G	0.6151	377.7	2.21	614	27.0	370.2	2.16	605	27.2	362.0	2.11	597	27.4	355.5	2.08
170	176	594	28.2	27.4	22.8	25.3	26.8	3.59	7.0	14.7	0.32	10.55	37.0	81	4.10	0.162	0.153	7.0	0.49	3524	2805	175	63	C	G	0.6355	377.5	2.14	594	27.4	370.1	2.10	586	27.6	362.0	2.05	579	27.8	355.8	2.02
175	181	575	28.6	27.8	23.0	25.5	26.9	3.63	7.1	14.7	0.32	10.82	36.9	81	4.17	0.164	0.155	6.9	0.49	3517	2805	173	62	C	G	0.6553	376.8	2.08	575	27.8	369.5	2.04	568	28.0	361.5	1.99	561	28.2	355.6	1.96
180	186	558	29.0	28.2	23.1	25.6	27.1	3.68	7.1	14.7	0.32	11.08	36.8	80	4.23	0.165	0.156	6.8	0.49	3510	2805	171	62	C	G	0.6747	376.5	2.02	558	28.2	369.2	1.98	552	28.4	361.3	1.94	546	28.6	355.7	1.91

Table 15. Average yields for seed-origin **regenerated** lodgepole pine stands in the Rocky Mountains (RM) and Boreal Forests (BF) regions.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
Region = RM SI = 13 m Initial Density = 8000 stems/ha																																								
5	13	7898	1.2	1.1	2.0	2.5	2.6	0.69	1.4	0.5	0.75	0.37	0.9	198	1.13	0.446	0.427	0.8	0.01	1036	4048	56	29	A	M	0.0001	0.7	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	7657	2.4	2.3	3.1	3.9	4.1	0.77	1.8	1.0	0.63	0.47	3.6	143	1.14	0.296	0.282	2.3	0.04	1386	4048	101	36	B	M	0.0007	5.0	0.28	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	7300	3.5	3.3	4.2	5.2	5.5	0.86	2.2	1.7	0.55	0.59	7.1	131	1.17	0.227	0.214	3.8	0.08	1765	4048	143	43	B	M	0.0020	14.4	0.62	2	7.9	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	6861	4.5	4.3	5.2	6.4	6.8	0.95	2.4	2.5	0.49	0.73	11.1	126	1.21	0.188	0.177	5.2	0.12	2136	4048	181	50	C	M	0.0042	29.0	1.03	130	8.2	1.6	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	6373	5.5	5.1	6.2	7.6	8.1	1.05	2.6	3.2	0.44	0.89	15.0	123	1.25	0.165	0.155	6.4	0.17	2478	4048	211	57	C	M	0.0075	47.9	1.44	717	8.4	11.0	0.33	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	38	5868	6.4	6.0	7.1	8.6	9.2	1.14	2.8	4.0	0.41	1.07	18.7	121	1.31	0.151	0.141	7.4	0.22	2776	4048	236	63	C	M	0.0119	69.7	1.83	1536	8.7	29.8	0.78	13	12.7	0.7	0.02	0	0.0	0.0	0.00
35	43	5369	7.2	6.8	7.9	9.6	10.3	1.23	3.0	4.7	0.38	1.25	22.0	119	1.36	0.142	0.133	8.2	0.27	3027	4048	253	67	C	M	0.0173	92.9	2.15	2225	9.1	54.2	1.26	75	12.9	4.6	0.11	8	14.4	0.6	0.01
40	48	4894	8.0	7.6	8.7	10.6	11.3	1.32	3.1	5.3	0.36	1.44	24.9	117	1.43	0.135	0.127	8.8	0.30	3230	4048	266	71	D	M	0.0238	116.6	2.42	2665	9.5	80.8	1.68	223	13.1	15.2	0.32	40	14.6	3.1	0.06
45	53	4452	8.8	8.4	9.5	11.4	12.2	1.41	3.3	5.9	0.35	1.64	27.4	115	1.50	0.132	0.123	9.2	0.34	3390	4048	274	73	D	M	0.0314	139.6	2.63	2883	10.0	107.4	2.02	444	13.3	33.5	0.63	119	14.8	10.1	0.19
50	58	4048	9.6	9.1	10.2	12.2	13.0	1.50	3.4	6.5	0.34	1.85	29.4	114	1.57	0.129	0.121	9.5	0.37	3512	4048	278	75	D	M	0.0399	161.5	2.78	2941	10.5	132.8	2.28	696	13.6	57.6	0.99	248	15.1	22.9	0.39
55	63	3683	10.4	9.9	10.8	12.9	13.8	1.58	3.5	7.0	0.33	2.07	31.1	112	1.65	0.128	0.120	9.7	0.39	3602	4048	279	76	D	M	0.0494	181.8	2.88	2896	11.0	156.2	2.47	935	13.9	84.9	1.34	411	15.3	41.2	0.65
60	68	3356	11.1	10.6	11.5	13.5	14.4	1.66	3.7	7.5	0.32	2.29	32.4	110	1.73	0.128	0.119	9.7	0.41	3665	4048	278	77	D	M	0.0597	200.3	2.94	2791	11.6	177.4	2.60	1133	14.3	112.5	1.65	583	15.6	63.4	0.93
65	73	3065	11.8	11.3	12.0	14.1	15.1	1.74	3.8	7.9	0.32	2.51	33.5	109	1.81	0.128	0.120	9.8	0.42	3707	4048	276	77	D	M	0.0708	217.1	2.97	2654	12.1	196.4	2.68	1281	14.6	138.9	1.90	743	15.8	87.4	1.19
70	78	2805	12.5	11.9	12.6	14.7	15.7	1.82	4.0	8.4	0.32	2.74	34.3	108	1.89	0.129	0.120	9.7	0.43	3731	4048	272	77	D	M	0.0827	231.9	2.97	2503	12.7	213.1	2.73	1379	15.0	162.9	2.08	878	16.1	111.6	1.43
75	83	2575	13.1	12.6	13.0	15.2	16.2	1.89	4.1	8.7	0.31	2.98	34.9	106	1.97	0.130	0.122	9.6	0.44	3741	4048	268	77	D	M	0.0952	245.1	2.95	2350	13.2	227.9	2.74	1436	15.3	184.3	2.22	984	16.4	134.9	1.62
80	88	2371	13.8	13.2	13.5	15.7	16.7	1.97	4.2	9.1	0.31	3.21	35.4	105	2.05	0.131	0.123	9.5	0.45	3741	4048	263	76	D	M	0.1083	256.7	2.91	2201	13.8	240.8	2.73	1459	15.7	203.0	2.30	1061	16.8	156.5	1.78
85	93	2189	14.4	13.8	13.9	16.1	17.2	2.04	4.4	9.4	0.31	3.45	35.8	104	2.14	0.133	0.124	9.4	0.45	3732	4048	258	75	D	M	0.1218	266.6	2.86	2060	14.3	252.0	2.71	1456	16.1	219.0	2.35	1110	17.1	175.8	1.89
90	98	2028	15.0	14.4	14.4	16.5	17.6	2.11	4.5	9.7	0.31	3.69	36.0	102	2.22	0.134	0.126	9.3	0.45	3717	4048	253	75	D	M	0.1358	275.4	2.81	1928	14.9	261.7	2.67	1436	16.5	232.8	2.37	1138	17.5	193.1	1.97
95	103	1884	15.6	15.0	14.7	16.9	18.0	2.18	4.6	10.0	0.31	3.92	36.1	101	2.30	0.136	0.128	9.1	0.46	3697	4048	248	74	D	M	0.1501	282.8	2.74	1806	15.4	270.0	2.62	1404	16.9	244.6	2.37	1148	17.8	208.2	2.02
100	108	1755	16.2	15.6	15.1	17.3	18.4	2.24	4.7	10.2	0.31	4.16	36.2	100	2.39	0.138	0.130	9.0	0.46	3674	4048	242	73	D	M	0.1647	289.1	2.67	1694	15.9	277.0	2.56	1363	17.3	254.4	2.35	1144	18.2	221.2	2.05
105	113	1640	16.8	16.1	15.4	17.6	18.7	2.31	4.8	10.5	0.31	4.40	36.2	99	2.47	0.140	0.132	8.8	0.46	3649	4048	237	72	D	M	0.1796	294.5	2.60	1591	16.4	283.0	2.50	1318	17.7	262.8	2.32	1131	18.5	232.5	2.05
110	118	1537	17.3	16.6	15.8	18.0	19.0	2.37	5.0	10.7	0.31	4.64	36.2	98	2.55	0.142	0.134	8.7	0.46	3623	4048	232	71	D	M	0.1946	299.1	2.53	1498	16.9	288.1	2.44	1271	18.1	269.9	2.28	1110	18.9	242.2	2.05
115	123	1444	17.8	17.2	16.1	18.2	19.4	2.43	5.1	10.9	0.31	4.88	36.1	96	2.63	0.144	0.136	8.5	0.45	3595	4048	227	70	D	M	0.2097	302.8	2.46	1412	17.4	292.3	2.37	1222	18.6	275.6	2.24	1085	19.3	250.5	2.03
120	128	1360	18.4	17.7	16.4	18.5	19.6	2.49	5.2	11.1	0.31	5.11	36.0	95	2.71	0.146	0.138	8.4	0.45	3567	4048	223	70	C	M	0.2249	305.8	2.39	1334	17.9	295.8	2.31	1174	19.0	280.5	2.19	1056	19.6	257.4	2.01
125	133	1285	18.9	18.2	16.6	18.8	19.9	2.54	5.3	11.2	0.32	5.35	35.9	94	2.79	0.148	0.140	8.3	0.45	3540	4048	218	69	C	M	0.2401	308.5	2.32	1264	18.4	298.8	2.24	1129	19.4	284.7	2.14	1026	20.0	263.5	1.98
130	138	1216	19.4	18.6	16.9	19.0	20.2	2.60	5.4	11.4	0.32	5.58	35.8	93	2.87	0.151	0.142	8.1	0.45	3513	4048	214	68	C	M	0.2553	310.4	2.25	1198	18.8	301.1	2.18	1083	19.8	287.8	2.08	995	20.4	268.4	1.94
135	143	1154	19.8	19.1	17.1	19.3	20.4	2.65	5.5	11.5	0.32	5.81	35.6	92	2.94	0.153	0.144	8.0	0.45	3486	4048	210	67	C	M	0.2705	312.1	2.18	1139	19.3	303.0	2.12	1041	20.1	290.6	2.03	964	20.7	272.7	1.90
140	148	1097	20.3	19.6	17.4	19.5	20.6	2.70	5.6	11.6	0.32	6.04	35.5	91	3.02	0.155	0.146	7.9	0.44	3460	4048	206	66	C	M	0.2854	313.1	2.11	1085	19.7	304.4	2.05	1000	20.5	292.7	1.98	933	21.1	276.1	1.86
145	153	1045	20.8	20.0	17.6	19.7	20.8	2.75	5.7	11.7	0.32	6.27	35.3	90	3.09	0.157	0.148	7.8	0.44	3436	4048	202	66	C	M	0.3004	313.9	2.05	1035	20.1	305.4	1.99	962	20.9	294.3	1.92	903	21.4	279.0	1.82
150	158	998	21.2	20.4	17.8	19.9	21.0	2.80	5.8	11.8	0.32	6.50	35.2	89	3.17	0.159	0.150	7.6	0.44	3412	4048	199	65	C	M	0.3152	314.6	1.99	989	20.6	306.3	1.94	926	21.3	295.7	1.87	874	21.8	281.4	1.78
155	163	955	21.6	20.9	18.0	20.1	21.2	2.85	5.8	11.9	0.33	6.72	35.1	88	3.24	0.161	0.152	7.5	0.44	3389	4048	195	64	C	M	0.3298	315.0	1.93	947	21.0	306.9	1.88	892	21.7	296.7	1.82	846	22.1	283.4	1.74
160	168	915	22.0	21.3	18.2	20.3	21.4	2.90	5.9	12.0	0.33	6.94	34.9	87	3.31	0.163	0.154	7.4	0.43	3368	4048	192	64	C	M	0.3443	315.0	1.87	908	21.4	307.1	1.83	860	22.0	297.3	1.77	820	22.5	285.0	1.69
165	173	878	22.5	21.7	18.4	20.5	21.6	2.94	6.0	12.0	0.33	7.16	34.8	86	3.37	0.165	0.156	7.3	0.43	3348	4048	189	63	C	M	0.3585	314.8	1.82	872	21.8	307.1	1.77	830	22.4	297.6	1.72	794	22.8	286.0	1.65
170	178	845	22.9	22.1	18.5	20.6	21.7	2.99	6.1	12.1	0.33	7.38	34.7	85	3.44	0.167	0.158	7.3	0.43	3329	4048	186	62	C	M	0.3725	314.8	1.77	840	22.2	307.2	1.72	802	22.7	298.1	1.67	770	23.1	287.2	1.61
175	183	813	23.2	22.5	18.7	20.8	21.9	3.03	6.2	12.1	0.33	7.59	34.5	84	3.51	0.169	0.160	7.2	0.42	3311	4048	184	62	C	M	0.3863	314.1	1.71	809	22.5	306.7	1.67	775	23.1	297.8	1.63	747	23.5	287.6	1.57
180	188	784	23.6	22.8	18.9	20.9	22.1	3.08	6.2	12.2	0.33	7.80	34.4	84	3.57	0.171	0.162	7.1	0.42	3295	4048	181	61	C	M	0.4000	313.6	1.67	780	22.9	306.3	1.63	750	23.4	297.6	1.58	725	23.8	288.0	1.53
Region = BF SI = 16 m Initial Density = 5500 stems/ha																																								
5	12	5411	1.6	1.5	2.3	2.9	3.0	0.71	1.6	0.5	0.75	0.40	1.1	166	1.36	0.473	0.451	0.9	0.01	781	2536	48	22	A	M	0.0003	1.5	0.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	5206	3.2	3.0	3.6	4.6	4.9	0.83	2.2	1.3	0.62	0.55	4.1	130	1.39	0.301	0.284	2.3	0.05	1144	2536	91	28	A	M	0.0016	8.5	0.51	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	4911	4.6	4.3	5.0	6.3	6.7	0.96	2.6	2.2	0.53	0.74	8.1	122	1.43	0.227	0.213	3.8	0.09	1543	2536	131	36	B	M	0.0045	22.2	1.02	72	8.4	0.9	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	4559	5.9	5.5	6.3	7.9	8.4	1.09	2.9	3.2	0.47	0.97	12.3	118	1.48	0.188	0.176	5.1	0.14	1934	2536	165	44	B	M	0.0092	41.8	1.57	737	8.6	11.7	0.44	2	12.5	0.1	0.00	0	0.0	0.0	0.00
25	32	4181	7.1	6.7	7.5	9.3	10.0	1.22	3.1	4.1	0.42	1.22	16.5	116	1.55	0.166	0.154	6.2	0.19	2288	2536	192	51	C	M	0.0156	65.3	2.06	1610	9.0	34.4	1.09	41	12.9	2.1	0.07	3	14.6	0.2	0.01
30	37	3803	8.2	7.8	8.7	10.7	11.5	1.34	3.3	5.1	0.39	1.49	20.2	114	1.62	0.152	0.141	7.0	0.24	2592	2536	213	56	C	M	0.0239	90.8	2.48	2177	9.6	62.3	1.70	203	13.2	12.2	0.33	33	14.9	2.2	0.06
35	42	3442	9.3	8.9	9.8	11.9	12.8	1.46	3.5	5.9	0.37	1.77	23.5	112	1.70	0.143	0.133	7.7	0.28	2844	2536	227	61	C	M	0.0338	116.5	2.80	2425	10.3	91.2	2.19	481	13.5	33.4	0.80	136	15.2	10.2	0.24
40	47	3108	10.4	9.9	10.8	13.0	14.0	1.58	3.7	6.7	0.35	2.07	26.3	111	1.79	0.138	0.128	8.2	0.31	3045	2536	236	64	C	M	0.0455	141.3	3.03	2467	11.0	119.0	2.55	784	13.9	62.2	1.33	314	15.5	26.8	0.57
45	52	2806	11.4	10.9	11.7	14.0	15.0	1.70	3.9	7.4	0.34	2.38	28.6	109	1.89	0.135	0.126	8.5	0.34	3201	2536	241	67	C	M	0.0586	164.5	3.18	2395	11.8	144.7	2.80	1038	14.4	93.7	1.81	525	15.8	50.6	0.98
50	57	2536	12.4	11.8	12.5	14.9	16.0	1.81	4.1	8.1	0.33	2.70	30.4	107	1.99	0.133	0.124	8.7	0.36	3319	2536	243	69	C	M	0.0732	185.7	3.28	2267	12.5	168.0	2.96	1214	14.9	124.2	2.19	722	16.2	78.2	1.38
55	62	2297	13.3	12.7	13.3	15.7	16.9	1.91	4.3	8.7	0.32	3.03	31.9	106	2.09	0.133	0.124	8.7	0.37	3406	2536	243	70	C	M	0.0891	204.7	3.32	2118	13.3	188.6	3.06	1316	15.4	151.8	2.46	879	16.6	106.4	1.73
60	67	2088	14.2	13.6	14.1	16.5	17.7	2.01	4.4	9.3	0.32	3.36	33.0	105	2.19	0.133	0.124	8.8	0.39	3467	2536	241	70	D	M	0.1061	221.6	3.32	1966	14.1	206.8	3.10	1359	15.9	176.0	2.64	988	17.1	133.2	2.00
65	72	1904	15.1	14.5	14.7	17.2	18.4	2.11	4.6	9.8	0.31	3.70	33.9	103	2.29	0.133	0.125	8.7	0.40	3509	2536	239	70	D	M	0.1241	236.3	3.30	1819	14.9	222.7	3.11	1360	16.5	196.8	2.75	1054	17.5	157.5	2.20
70	77	1742	15.9	15.3	15.4	17.8	19.1	2.21	4.8	10.3	0.31	4.04	34.6	102	2.40	0.134	0.126	8.7	0.41	3535	2536	235	70	D	M	0.1430	249.1	3.25	1682	15.6	236.4	3.08	1334	17.1	214.3	2.80	1084	18.0	178.9	2.33
75	82	1601	16.7	16.1	16.0	18.4	19.7	2.30	4.9	10.7	0.31	4.38	35.1	100	2.50	0.136	0.127	8.6	0.41	3549	2536	231	70	D	M	0.1625	260.2	3.19	1558	16.4	248.3	3.04	1292	17.7	229.3	2.81	1089	18.5	197.5	2.42
80	87	1477	17.5	16.8	16.5	19.0	20.2	2.39	5.1	11.1	0.31	4.72	35.5	99	2.60	0.137	0.129	8.5	0.42	3554	2536	227	70	C	M	0.1827	269.8	3.11	1446	17.1	258.6	2.98	1240	18.2	241.9	2.79	1077	19.0	213.5	2.46
85	92	1368	18.2	17.6	17.0	19.5	20.7	2.47	5.2	11.5	0.31	5.06	35.7	98	2.70	0.139	0.130	8.4	0.42	3553	2536	222	69	C	M	0.2033	278.1	3.03	1345	17.8	267.4	2.92	1185	18.8	252.6	2.76	1053	19.5	227.1	2.48
90	97	1271	19.0	18.3	17.5	19.9	21.2	2.56	5.4	11.8	0.31	5.40	35.9	97	2.80	0.141	0.132	8.2	0.42	3546	2536	218	69	C	M	0.2242	285.0	2.95	1253	18.5	274.8	2.84	1128	19.4	261.4	2.70	1021	20.1	238.6	2.47
95	102	1186	19.7	19.0	17.9	20.3	21.6	2.64	5.5	12.1	0.31	5.73	36.0	96	2.90	0.143	0.134	8.1	0.42	3536	2536	213	68	C	M	0.2454	291.0	2.86	1173	19.1	281.2	2.77	1073	20.0	268.9	2.64	985	20.6	248.4	2.44
100	107	1110	20.3	19.6	18.3	20.7	22.0	2.71	5.6	12.4	0.31	6.06	36.0	94	3.00	0.145	0.136	8.0	0.42	3523	2536	209	67	C	M	0.2666	295.9	2.77	1100	19.8	286.5	2.69	1020	20.5	275.2	2.58	948	21.1	256.6	2.41
105	112	1043	21.0	20.3	18.7	21.1	22.4	2.78	5.7	12.6	0.31	6.39	36.1	93	3.10	0.147	0.138	7.9	0.42	3509	2536	205	67	C	M	0.2879	300.3	2.69	1035	20.4	291.2	2.61	970	21.1	280.6	2.51	911	21.6	263.7	2.36
110	117	983	21.6	20.9	19.1	21.5	22.7	2.86	5.9	12.8	0.31	6.72	36.1	92	3.19	0.149	0.140	7.8	0.42	3495	2536	201	66	C	M	0.3092	303.9	2.60	977	21.0	295.1	2.53	924	21.6	285.1	2.44	874	22.1	269.7	2.31
115	122	929	22.2	21.5	19.4	21.8	23.1	2.92	6.0	13.0	0.31	7.04	36.0	91	3.28	0.151	0.142	7.6	0.42	3480	2536	198	65	C	M	0.3304	306.9	2.52	924	21.6	298.3	2.45	881	22.1	288.8	2.37	839	22.6	274.7	2.26
120	127	880	22.8	22.1	19.7	22.1	23.4	2.99	6.1	13.2	0.31	7.35	35.9	90	3.37	0.153	0.144	7.5	0.42	3465	2536	194	65	C	M	0.3514	309.2	2.44	876	22.1	300.8	2.37	840	22.7	291.7	2.30	805	23.1	278.8	2.20
125	132	837	23.4	22.6	20.1	22.4	23.6	3.05	6.2	13.3	0.31	7.66	35.9	89	3.46	0.155	0.146	7.4	0.42	3450	2536	191	64	C	M	0.3720	311.4	2.36	834	22.7	303.3	2.30	804	23.1	294.6	2.24	774	23.5	282.6	2.15
130	137	797	23.9	23.2	20.3	22.6	23.9	3.11	6.3	13.5	0.32	7.97	35.8	88	3.54	0.156	0.148	7.3	0.42	3436	2536	187	64	C	M	0.3926	312.9	2.29	794	23.2	304.9	2.23	769	23.6	296.5	2.17	744	24.0	285.4	2.09
135	142	762	24.4	23.7	20.6	22.9	24.2	3.17	6.4	13.6	0.32	8.27	35.7	87	3.62	0.158	0.150	7.2	0.42	3423	2536	185	63	C	M	0.4127	314.5	2.22	760	23.7	306.7	2.16	738	24.1	298.5	2.11	716	24.5	288.1	2.03
140	147	729	24.9	24.2	20.9	23.1	24.4	3.23	6.5	13.7	0.32	8.56	35.6	86	3.70	0.160	0.152	7.1	0.42	3411	2536	182	62	C	M	0.4325	315.3	2.15	727	24.2	307.7	2.10	709	24.6	299.7	2.04	690	24.9	290.0	1.98
145	152	700	25.4	24.7	21.1	23.4	24.6	3.28	6.6	13.8	0.32	8.85	35.6	85	3.78	0.162	0.154	7.1	0.42	3399	2536	179	62	C	M	0.4520	316.4	2.09	699	24.7	308.9	2.04	683	25.0	301.1	1.99	666	25.3	292.0	1.93
150	157	673	25.9	25.1	21.3	23.6	24.8	3.34	6.7	13.9	0.32	9.14	35.5	84	3.85	0.164	0.155	7.0	0.42	3389	2536	177	62	C	M	0.4710	317.0	2.02	672	25.2	309.7	1.98	658	25.5	302.0	1.93	644	25.8	293.5	1.87
155	162	648	26.4	25.6	21.6	23.8	25.0	3.39	6.8	13.9	0.32	9.42	35.4	84	3.93	0.165	0.157	6.9	0.42	3380	2536	174	61	C	M	0.4897	317.3	1.96	647	25.6	310.1	1.92	635	25.9	302.5	1.87	622	26.2	294.5	1.82
160	167	625	26.8	26.0	21.8	24.0	25.2	3.44	6.9	14.0	0.33	9.69	35.3	83	4.00	0.167	0.159	6.8	0.42	3372	2536	172	61	C	M	0.5078	317.4	1.90	624	26.1	310.3	1.86	614	26.3	302.9	1.82	602	26.6	295.3	1.77
165	172	605	27.3	26.5	22.0	24.1	25.4	3.49	6.9	14.1	0.33	9.96	35.3	82	4.07	0.168	0.160	6.8	0.42	3365	2536	170	60	C	M	0.5258	318.1	1.85	604	26.5	311.0	1.81	595	26.7	303.7	1.77	585	27.0	296.5	1.73
170	177	585	27.7	26.9	22.3	24.3	25.5	3.53	7.0	14.1	0.33	10.23	35.2	81	4.13	0.170	0.162	6.7	0.42	3359	2536	168	60	C	M	0.5431	317.7	1.80	585	26.9	310.7	1.76	576	27.1	303.5	1.72	567	27.4	296.6	1.68
175	182	568	28.1	27.3	22.3	24.5	25.7	3.58	7.1	14.1	0.33	10.49	35.2	80	4.20	0.171	0.163	6.6	0.42	3354	2536	167	60	C	M	0.5599	318.0	1.75	568	27.3	311.1	1.71	560	27.5	304.0	1.67	552	27.7	297.4	1.64
180	187	551	28.5	27.7	22.5	24.6	25.9	3.62	7.1	14.2	0.33	10.74	35.1	79	4.26	0.173	0.165	6.6	0.41	3350	2536	165	59	C	M	0.5762	317.5	1.70	551	27.7	310.7	1.66	544	27.9	303.7	1.63	537	28.1	297.4	1.59

5.0 GYPSY Applications

There are many different ways that GYPSY can be used to make growth and yield projections for natural and regenerated lodgepole pine stands and to solve practical forest management problems (Huang 2001). Two of the typical scenarios that are most likely to be encountered in practice, are presented here. The input variables required to initiate GYPSY are presented first.

5.1 The Input Variables for GYPSY

In order to run GYPSY for seed-origin natural and regenerated lodgepole pine stands, either one of the following two sets of input variables can be used: (I) initial density and site index; (II) current density, top height and age.

Set I – Initial density and site index

Initial density (N_0) refers to the total number of trees (stems/ha) taller than 1.3 m at bhage zero. Unless otherwise defined, site index (SI) refers to the top height at a reference bhage of 50 years, where top height is defined as the average height of the 100 largest DBH trees per ha. If necessary, conversions between bhage based site index and totage based site index can be made according to Table 16, which is derived from equations [1]-[3].

Table 16. Conversions between breast height age based site index (SI or SI_{bhage}) and total age based site index (SI_{totage}).

From SI_{bhage} to SI_{totage}						From SI_{totage} to SI_{bhage}					
SI_{bhage}	SI_{totage}	SI_{bhage}	SI_{totage}	SI_{bhage}	SI_{totage}	SI_{totage}	SI_{bhage}	SI_{totage}	SI_{bhage}	SI_{totage}	SI_{bhage}
2.0	0.93	11.5	10.09	21.0	19.82	2.0	3.24	11.5	12.88	21.0	22.15
2.5	1.35	12.0	10.60	21.5	20.33	2.5	3.79	12.0	13.37	21.5	22.64
3.0	1.78	12.5	11.11	22.0	20.85	3.0	4.33	12.5	13.86	22.0	23.12
3.5	2.23	13.0	11.62	22.5	21.36	3.5	4.86	13.0	14.35	22.5	23.61
4.0	2.69	13.5	12.13	23.0	21.87	4.0	5.38	13.5	14.84	23.0	24.10
4.5	3.16	14.0	12.64	23.5	22.39	4.5	5.90	14.0	15.33	23.5	24.59
5.0	3.63	14.5	13.15	24.0	22.90	5.0	6.41	14.5	15.82	24.0	25.07
5.5	4.11	15.0	13.66	24.5	23.41	5.5	6.92	15.0	16.30	24.5	25.56
6.0	4.60	15.5	14.18	25.0	23.92	6.0	7.43	15.5	16.79	25.0	26.05
6.5	5.08	16.0	14.69	25.5	24.44	6.5	7.93	16.0	17.28	25.5	26.54
7.0	5.58	16.5	15.20	26.0	24.95	7.0	8.43	16.5	17.77	26.0	27.02
7.5	6.07	17.0	15.71	26.5	25.46	7.5	8.93	17.0	18.25	26.5	27.51
8.0	6.57	17.5	16.23	27.0	25.97	8.0	9.43	17.5	18.74	27.0	28.00
8.5	7.07	18.0	16.74	27.5	26.49	8.5	9.93	18.0	19.23	27.5	28.49
9.0	7.57	18.5	17.25	28.0	27.00	9.0	10.42	18.5	19.72	28.0	28.98
9.5	8.07	19.0	17.77	28.5	27.51	9.5	10.92	19.0	20.20	28.5	29.47
10.0	8.57	19.5	18.28	29.0	28.02	10.0	11.41	19.5	20.69	29.0	29.95
10.5	9.08	20.0	18.79	29.5	28.54	10.5	11.90	20.0	21.18	29.5	30.44
11.0	9.58	20.5	19.31	30.0	29.05	11.0	12.39	20.5	21.66	30.0	30.93

Note: SI_{bhage} = top height (m) at 50 years breast height age (bhage), SI_{totage} = top height (m) at 50 years total age (totage), and top height is defined as the average height of the 100 largest DBH trees per ha.

The first set of input variables (initial density and site index) is often associated with management planning, simulations and comparisons in which the initial density and site index are known (or assumed to be known). Based on the known initial density and site index, growth and yield projections for seed-origin natural and seed-origin regenerated lodgepole pine stands can be made in a fairly straightforward manner, as described in Section 5.2.

Set II – Current density, top height and age

Current density refers to the current observed stand density (in stems/ha) for trees taller than 1.3 m. Top height is defined as the average height of the 100 largest DBH trees per ha. Age can be any one of the three types of age: total age, stump age, or breast height age. In practice, top height and age can be obtained by averaging the heights and ages of three largest DBH trees in each 0.03-ha plot, or four largest DBH trees in each 0.04-ha plot. The recommended age for use is bhage. If necessary, conversions among different ages can be made according to Table 17, which is derived from equations [1]-[3].

Table 17. Site-specific breast height age, stump age and total age conversions.

	Site index (SI_{bhage}, m)																							
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Y2BH	27	21	17	15	13	12	10	10	9	8	8	7	7	6	6	6	5	5	5	5	4	4	4	4
Y2SH	10	8	7	6	5	5	4	4	4	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2

Note: Y2BH = years needed to reach breast height (1.3 m above ground), Y2SH = years needed to reach stump height (0.3 m above ground), totage = bhage + Y2BH = stumpage + Y2SH, SI_{bhage} is the bhage based site index, defined as the top height (m) at 50 years bhage, and top height refers to the average height of the 100 largest DBH trees per ha.

The second set of input variables is most typically associated with the growth and yield projections of existing stands. Actual observations on current density, top height and age must first be obtained from plots placed in existing stands, and then inputted into GYPSY to make forward (or sometimes backward) projections. If the observations are obtained from one stand, the projections become stand-specific. When necessary, GYPSY can also be used to make plot-specific projections (Huang 2001).

Intrinsically, the second set of input variables can be considered the same as the first set of input variables. The observed top height and age can be used to estimate site index from the site index equation [1]. The observed current density and age, along with the estimated site index, can be used to derive initial density through the mortality models [5]-[6].

5.2 Projections Based on Initial Density and Site Index

If initial density and site index are known, growth and yield projections for seed-origin natural and regenerated lodgepole pine stands can be read or interpolated directly from the curves shown in Appendix 1. The steps used to generate the yield relationships shown in Appendix 1 are summarized here:

Step 1 – The bhage based SI is converted into totage based site index SI_{totage}. Once SI_{totage} is available, top height (H_{TOP}) at any given bhage or totage can be derived using equation [1].

Step 2 – With known values of SI_{totage}, N_0 and H_{TOP} at any given age, the average height of all trees in the stand (H), can be obtained from equation [14].

Step 3 – Based on N_0 and SI_{totage}, stand density factor (SDF) can be solved numerically from equation [6]. Once SDF is known, stand density (N) at any given age can be predicted from [5].

Step 4 – Once H and N at any given age are known, the Weibull diameter distribution can be constructed using equation [7]. The DBH of every tree in the distribution can be obtained using equation [10] derived from the inverse-distribution approach (Huang 2001).

Step 5 – Having the diameter of every tree, total stand basal area can be computed. Total height of every tree can be estimated based on equation [11]. With the known values of height and diameter for every tree in the stand, total volume and merchantable volumes at different utilization standards can be derived from the taper equation [12].

5.3 Projections Based on Current Density, Top Height and Age

The GYPSY projection scenario described in Section 5.2 assumes that initial density (N_0) and site index (SI) are known. Sometimes, this assumption can be rather restrictive, for one may not always know what the N_0 and SI are. The procedures described here allow for the projections to be made based on the observed current density, top height and one of the three ages from existing stands, where current density refers to the current observed stand density (stems/ha) for trees taller than 1.3 m, and top height and age can be obtained by averaging the heights and ages of three largest DBH trees in each 0.03-ha plot, or four largest DBH trees in each 0.04-ha plot. The recommended age for use in practice is bhage. If necessary, conversions among different types of age can be made according to Table 17.

Once the current density, top height and bhage are known, the following procedure can be used to make growth and yield projections for seed-origin natural and regenerated lodgepole pine stands:

1). Based on the known values of top height and bhage, site index (SI_{bhage} and SI_{totage}) can be derived numerically from equations [1]-[3], or approximated from Table 3 and Table 16.

2). Given the observed current density, bhage, and the predicted SI_{totage}, stand density factor (SDF) can be solved numerically from the mortality function [5]. Once SDF is available, initial density (N_0) can be predicted from equation [6], or approximated from Figure 5 and Table 4.

3). Having the predicted values of initial density and site index, growth and yield projections for seed-origin natural and regenerated lodgepole pine stands can be read or interpolated directly from the curves shown in Appendix 1.

Most growth and yield projections can be labelled forward projections, that is, the growth and yield information at future times are projected based on the current available information. Sometimes, backward projections are necessary. Backward projections trace back the past growth and yield information from the current information. For instance, in GYPSY, the height growth trajectory can be traced back based on the site index equation [1], and the stand density trajectory can be traced back based on the mortality function [5]. Once the top height and the stand density trajectories are known, the Weibull diameter distribution at any point in time can be reconstructed and the past growth and yield information estimated.

GYPSY's ability to make backward projections can be very useful in many practical circumstances. Backward projections allow a targeted yield at any specified time (e.g., at the rotation age) to be assumed, and the initial or intermediate conditions required to achieve the assumed yield to be identified. This can be very important in establishing density regulations for regeneration standards and developing monitoring protocols for sustainable development (Huang 2001).

To use GYPSY to make growth and yield projections, either one of the two sets of input variables listed in Section 5.1 must be known. At times, however, there are cases in which nothing is known about the seed-origin natural and regenerated lodgepole pine stands, yet for whatever reason, growth and yield projections are needed for these stands. When such situations are encountered, the average initial density and site index values listed in Section 4.3 can be used as the input variables to initiate GYPSY runs.

5.4 GYPSY in Microsoft Excel Environment – ExcelGYPSY

In order to facilitate the understanding and application of GYPSY, a yield table generator termed ExcelGYPSY was developed using the Microsoft Visual Basic Programming System. ExcelGYPSY works in a Microsoft Excel environment. It is not restricted to the Microsoft Windows Operating System. A user's guide for ExcelGYPSY is being prepared and is planned for release at a later date.

At this time, ExcelGYPSY is available only to authorized individuals and organizations. Readers who are interested in obtaining the authorization may contact the Forest Management Division of Alberta Land and Forest Service. It is expected that once the other GYPSY modules are completed, ExcelGYPSY will be made more widely available.

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7.0 Appendices

Appendix 1. Yield Relationships for Seed-origin Natural and Regenerated Lodgepole Pine Stands in Alberta

A total of 135 tables are presented in Appendix 1. They were generated based fifteen site indexes (SI = 6, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22 and 25 m) and eighteen initial densities (N_0 = 800, 1000, 1600, 2000, 3000, 4000, 5000, 6000, 7000, 7500, 8000, 9000, 10000, 15000, 20000, 30000, 50000 and 80000 stems/ha). They represent a small portion of the tables that can be generated using GYPSY. Only the results for the four utilization standards specified in Table 6 are provided here. Approximations of the yield relationships within the given ranges of site index and initial density can be made based on these tables. The exact yield relationships at any given values of site index and initial density can be obtained using ExcelGYPSY.

If site index and initial density are known, growth and yield projections for seed-origin natural and regenerated lodgepole pine stands can be read or interpolated directly from the tables shown in Appendix 1. If both site index and initial density are unknown, they must first be predicted from the observed current density, top height (or dominant and co-dominant height) and age (breast height age, stump age, or total age). Tables 1-3 and Table 16 can be used to make site index predictions and conversions. Figure 5 and Table 4 can be used to approximate initial density. The exact yield relationships at given values of current density, top height and age can be obtained using ExcelGYPSY.

Table A1. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume) N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	Util. std. = 8/6 N	D	V/ha	Mai	Util. std. = 13/7 N	D	V/ha	Mai	Util. std = 15/10 N	D	V/ha	Mai
SI = 6 m Initial Density = 800 stems/ha																																								
5	22	800	1.3	1.2	1.7	1.8	1.8	0.69	1.5	0.2	0.91	0.38	0.1	167	3.54	1.951	1.934	0.1	0.00	98	786	6	3	V	U	0.0001	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	27	799	2.3	2.2	2.2	2.3	2.4	0.76	1.9	0.3	0.87	0.46	0.3	118	3.54	1.513	1.499	0.2	0.00	132	786	10	4	V	U	0.0005	0.4	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	32	799	3.3	3.0	2.7	2.9	2.9	0.84	2.3	0.4	0.83	0.56	0.7	104	3.54	1.239	1.226	0.4	0.01	171	786	14	4	V	U	0.0013	1.0	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	37	798	4.1	3.8	3.2	3.4	3.4	0.91	2.7	0.6	0.80	0.67	1.1	98	3.54	1.054	1.043	0.5	0.01	214	786	19	5	A	U	0.0023	1.8	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	42	796	4.9	4.5	3.7	3.8	3.9	0.98	3.0	0.9	0.77	0.79	1.5	96	3.54	0.923	0.913	0.7	0.01	259	786	23	6	A	U	0.0038	3.0	0.07	8	9.4	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	47	795	5.6	5.2	4.1	4.3	4.4	1.06	3.3	1.1	0.74	0.91	1.9	94	3.55	0.824	0.815	0.8	0.02	307	786	27	7	A	U	0.0057	4.5	0.10	48	9.3	0.7	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	52	793	6.2	5.8	4.6	4.7	4.8	1.12	3.5	1.4	0.71	1.04	2.4	93	3.55	0.749	0.740	1.0	0.02	356	786	31	8	A	U	0.0079	6.3	0.12	121	9.4	1.9	0.04	2	12.7	0.1	0.00	0	0.0	0.0	0.00
40	57	791	6.9	6.4	5.0	5.2	5.2	1.19	3.8	1.6	0.69	1.17	2.9	93	3.56	0.689	0.681	1.1	0.03	405	786	35	9	A	U	0.0106	8.4	0.15	207	9.5	3.7	0.06	8	13.0	0.3	0.01	0	0.0	0.0	0.00
45	62	789	7.4	7.0	5.4	5.6	5.6	1.25	4.0	1.9	0.67	1.30	3.4	92	3.56	0.641	0.633	1.3	0.03	454	786	39	10	A	U	0.0136	10.7	0.17	289	9.7	5.9	0.09	20	13.2	0.8	0.01	4	14.6	0.2	0.00
50	67	786	8.0	7.5	5.7	5.9	6.0	1.31	4.1	2.2	0.65	1.43	4.0	92	3.57	0.601	0.594	1.4	0.04	504	786	42	11	A	U	0.0167	13.1	0.19	360	9.9	8.3	0.12	39	13.4	1.8	0.03	9	14.9	0.4	0.01
55	72	783	8.5	8.0	6.1	6.3	6.4	1.37	4.3	2.4	0.63	1.56	4.5	91	3.57	0.569	0.562	1.5	0.04	553	786	46	12	A	U	0.0201	15.7	0.22	419	10.2	11.0	0.15	64	13.5	3.1	0.04	18	15.1	1.0	0.01
60	77	780	9.0	8.5	6.4	6.6	6.7	1.42	4.4	2.7	0.62	1.68	5.0	91	3.58	0.541	0.535	1.7	0.05	601	786	49	13	A	U	0.0237	18.5	0.24	467	10.5	13.7	0.18	94	13.7	4.9	0.06	31	15.2	1.8	0.02
65	82	777	9.5	8.9	6.7	6.9	7.0	1.47	4.5	2.9	0.60	1.81	5.5	90	3.59	0.517	0.511	1.8	0.05	649	786	52	14	A	U	0.0275	21.4	0.26	507	10.7	16.7	0.20	126	13.9	7.1	0.09	48	15.4	3.0	0.04
70	87	774	9.9	9.4	7.0	7.2	7.3	1.52	4.6	3.1	0.59	1.94	6.0	90	3.59	0.496	0.491	1.9	0.06	696	786	55	15	A	U	0.0314	24.3	0.28	539	11.0	19.7	0.23	159	14.1	9.6	0.11	68	15.5	4.5	0.05
75	92	771	10.4	9.8	7.3	7.5	7.6	1.57	4.7	3.3	0.58	2.06	6.5	90	3.60	0.478	0.473	2.0	0.06	742	786	58	16	A	U	0.0355	27.4	0.30	565	11.3	22.7	0.25	192	14.3	12.3	0.13	91	15.7	6.3	0.07
80	97	767	10.8	10.2	7.6	7.8	7.9	1.62	4.8	3.6	0.57	2.18	7.0	89	3.61	0.463	0.458	2.1	0.07	786	786	61	17	A	U	0.0396	30.4	0.31	586	11.6	25.8	0.27	223	14.5	15.2	0.16	114	15.8	8.4	0.09
85	102	763	11.2	10.5	7.8	8.1	8.1	1.66	4.9	3.8	0.56	2.30	7.5	89	3.62	0.449	0.445	2.2	0.07	830	786	63	18	A	U	0.0439	33.5	0.33	602	11.9	28.9	0.28	253	14.6	18.2	0.18	138	16.0	10.7	0.10
90	107	759	11.5	10.9	8.1	8.3	8.4	1.70	5.0	3.9	0.55	2.42	7.9	88	3.63	0.437	0.433	2.3	0.08	873	786	66	18	A	U	0.0482	36.6	0.34	616	12.1	32.0	0.30	281	14.8	21.4	0.20	163	16.1	13.3	0.12
95	112	755	11.9	11.2	8.3	8.5	8.6	1.74	5.0	4.1	0.54	2.54	8.4	88	3.64	0.427	0.422	2.4	0.08	915	786	68	19	A	U	0.0526	39.7	0.35	627	12.4	35.1	0.31	308	15.0	24.6	0.22	187	16.3	16.0	0.14
100	117	751	12.2	11.6	8.5	8.7	8.8	1.78	5.1	4.3	0.53	2.66	8.8	87	3.65	0.417	0.413	2.5	0.09	956	786	71	20	A	U	0.0569	42.7	0.36	636	12.7	38.2	0.33	332	15.2	27.8	0.24	210	16.5	18.8	0.16
105	122	746	12.6	11.9	8.7	9.0	9.1	1.82	5.2	4.5	0.53	2.77	9.3	87	3.66	0.409	0.404	2.6	0.09	995	786	73	21	A	U	0.0614	45.8	0.37	642	12.9	41.3	0.34	354	15.4	31.0	0.25	232	16.6	21.6	0.18
110	127	742	12.9	12.2	8.9	9.2	9.3	1.86	5.2	4.6	0.52	2.89	9.7	86	3.67	0.401	0.397	2.7	0.10	1034	786	75	21	A	U	0.0658	48.8	0.38	648	13.2	44.3	0.35	374	15.6	34.2	0.27	253	16.8	24.6	0.19
115	132	737	13.2	12.5	9.1	9.3	9.4	1.89	5.3	4.7	0.52	3.00	10.1	86	3.68	0.394	0.390	2.8	0.10	1071	786	77	22	A	U	0.0701	51.7	0.39	651	13.4	47.3	0.36	392	15.7	37.4	0.28	273	16.9	27.6	0.21
120	137	732	13.5	12.8	9.3	9.5	9.6	1.93	5.3	4.9	0.51	3.11	10.5	85	3.70	0.388	0.384	2.9	0.10	1108	786	79	23	A	U	0.0747	54.7	0.40	654	13.7	50.2	0.37	409	15.9	40.6	0.30	292	17.1	30.6	0.22
125	142	727	13.8	13.1	9.5	9.7	9.8	1.96	5.3	5.0	0.51	3.22	10.9	85	3.71	0.382	0.378	2.9	0.11	1143	786	81	23	A	U	0.0791	57.5	0.40	655	13.9	53.1	0.37	423	16.1	43.6	0.31	309	17.2	33.6	0.24
130	147	722	14.1	13.4	9.6	9.9	10.0	1.99	5.4	5.1	0.50	3.33	11.3	84	3.72	0.377	0.373	3.0	0.11	1178	786	82	24	A	U	0.0835	60.3	0.41	656	14.2	55.9	0.38	437	16.3	46.7	0.32	325	17.4	36.6	0.25
135	152	717	14.4	13.7	9.8	10.0	10.1	2.02	5.4	5.2	0.50	3.44	11.7	84	3.73	0.372	0.369	3.1	0.12	1211	786	84	25	A	U	0.0880	63.1	0.41	656	14.4	58.6	0.38	448	16.5	49.6	0.33	340	17.6	39.5	0.26
140	157	712	14.7	13.9	9.9	10.2	10.3	2.05	5.5	5.4	0.50	3.54	12.1	83	3.75	0.368	0.365	3.2	0.12	1244	786	86	25	A	U	0.0924	65.8	0.42	656	14.7	61.4	0.39	459	16.6	52.5	0.33	354	17.7	42.5	0.27
145	162	707	15.0	14.2	10.1	10.3	10.4	2.09	5.5	5.5	0.49	3.65	12.4	82	3.76	0.364	0.361	3.2	0.12	1275	786	87	26	A	U	0.0967	68.4	0.42	655	14.9	64.0	0.39	469	16.8	55.4	0.34	367	17.9	45.4	0.28
150	167	702	15.2	14.5	10.2	10.5	10.6	2.12	5.5	5.5	0.49	3.75	12.8	82	3.77	0.361	0.357	3.3	0.13	1306	786	89	26	A	U	0.1011	71.0	0.42	654	15.1	66.6	0.40	477	17.0	58.2	0.35	379	18.0	48.2	0.29
155	172	697	15.5	14.7	10.4	10.6	10.7	2.14	5.5	5.6	0.49	3.86	13.1	81	3.79	0.358	0.354	3.3	0.13	1336	786	90	27	A	U	0.1056	73.6	0.43	652	15.3	69.1	0.40	485	17.2	60.9	0.35	390	18.2	51.1	0.30
160	177	691	15.7	15.0	10.5	10.7	10.8	2.17	5.6	5.7	0.49	3.96	13.5	81	3.80	0.355	0.352	3.4	0.13	1365	786	91	27	A	U	0.1098	75.9	0.43	649	15.6	71.5	0.40	491	17.3	63.4	0.36	399	18.3	53.7	0.30
165	182	686	16.0	15.2	10.6	10.8	10.9	2.20	5.6	5.8	0.48	4.07	13.8	80	3.82	0.352	0.349	3.4	0.13	1393	786	92	28	A	U	0.1141	78.3	0.43	647	15.8	73.9	0.41	496	17.5	66.0	0.36	408	18.5	56.4	0.31
170	187	681	16.2	15.4	10.7	11.0	11.1	2.23	5.6	5.9	0.48	4.17	14.1	80	3.83	0.350	0.347	3.5	0.14	1421	786	94	28	A	U	0.1185	80.7	0.43	645	16.0	76.2	0.41	501	17.7	68.5	0.37	417	18.6	59.0	0.32
175	192	675	16.5	15.7	10.8	11.1	11.2	2.26	5.6	5.9	0.48	4.27	14.4	79	3.85	0.348	0.345	3.5	0.14	1448	786	95	29	A	U	0.1227	82.8	0.43	641	16.2	78.4	0.41	505	17.9	70.8	0.37	423	18.8	61.4	0.32
180	197	670	16.7	15.9	11.0	11.2	11.3	2.28	5.7	6.0	0.48	4.37	14.7	78	3.86	0.345	0.342	3.6	0.14	1474	786	96	29	A	U	0.1269	85.0	0.43	638	16.4	80.6	0.41	509	18.0	73.1	0.37	430	18.9	63.9	0.32
SI = 6 m Initial Density = 1000 stems/ha																																								
5	22	1000	1.2	1.1	1.7	1.8	1.8	0.69	1.5	0.2	0.90	0.37	0.1	176	3.16	1.746	1.730	0.1	0.00	122	976	7	4	V	U	0.0001	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	27	999	2.2	2.1	2.2	2.3	2.4	0.75	1.9	0.3	0.86	0.45	0.4	123	3.16	1.355	1.340	0.3	0.00	162	976	12	4	V	U	0.0004	0.4	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	32	997	3.1	2.9	2.7	2.9	2.9	0.82	2.2	0.5	0.82	0.54	0.8	108	3.17	1.110	1.098	0.4	0.01	207	976	17	5	A	U	0.0011	1.1	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	37	996	3.9	3.6	3.2	3.4	3.4	0.89	2.6	0.7	0.79	0.64	1.2	102	3.17	0.945	0.934	0.6	0.01	256	976	22	6	A	U	0.0021	2.1	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	42	993	4.6	4.3	3.7	3.8	3.9	0.96	2.9	0.9	0.75	0.75	1.7	99	3.17	0.827	0.817	0.8	0.02	309	976	27	7	A	U	0.0034	3.4	0.08	6	9.2	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	47	991	5.3	5.0	4.1	4.3	4.4	1.03	3.2	1.2	0.72	0.87	2.2	97	3.18	0.739	0.730	1.0	0.02	363	976	32	9	A	U	0.0051	5.1	0.11	41	9.2	0.6	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	52	987	6.0	5.6	4.5	4.7	4.8	1.10	3.4	1.4	0.70	0.98	2.8	96	3.18	0.672	0.664	1.1	0.03	419	976	36	10	A	U	0.0072	7.1	0.14	118	9.2	1.8	0.03	2	12.2	0.1	0.00	0	0.0	0.0	0.00
40	57	984	6.6	6.1	4.9	5.2	5.2	1.16	3.6	1.7	0.67	1.10	3.3	95	3.19	0.619	0.611	1.3	0.03	475	976	41	11	A	U	0.0096	9.4	0.16	215	9.3	3.7	0.06	6	12.8	0.2	0.00	0	0.0	0.0	0.00
45	62	980	7.1	6.7	5.3	5.5	5.6	1.22	3.8	2.0	0.65	1.22	3.9	95	3.19	0.576	0.568	1.5	0.04	532	976	45	12	A	U	0.0122	12.0	0.19	314	9.5	6.0	0.10	15	13.1	0.6	0.01	2	14.5	0.1	0.00
50	67	976	7.7	7.2	5.7	5.9	6.0	1.28	4.0	2.2	0.63	1.35	4.5	94	3.20	0.541	0.533	1.6	0.04	588	976	49	13	A	U	0.0152	14.8	0.22	402	9.7	8.7	0.13	33	13.2	1.4	0.02	6	14.8	0.3	0.00
55	72	971	8.2	7.7	6.0	6.3	6.4	1.33	4.1	2.5	0.61	1.47	5.1	94	3.21	0.511	0.505	1.8	0.05	643	976	53	14	A	U	0.0182	17.7	0.24	478	10.0	11.7	0.16	57	13.4	2.7	0.04	14	14.9	0.7	0.01
60	77	966	8.6	8.1	6.4	6.6	6.7	1.38	4.2	2.7	0.60	1.59	5.7	93	3.22	0.487	0.480	1.9	0.06	698	976	57	15	A	U	0.0215	20.8	0.27	540	10.2	14.9	0.19	87	13.6	4.5	0.06	25	15.1	1.4	0.02
65	82	960	9.1	8.6	6.7	6.9	7.0	1.43	4.3	3.0	0.58	1.71	6.2	93	3.23	0.466	0.460	2.1	0.06	752	976	61	16	A	U	0.0251	24.1	0.29	592	10.5	18.1	0.22	122	13.7	6.7	0.08	41	15.2	2.5	0.03
70	87	955	9.5	9.0	7.0	7.2	7.3	1.48	4.4	3.2	0.57	1.82	6.8	92	3.24	0.448	0.442	2.2	0.07	805	976	64	17	A	U	0.0287	27.4	0.31	634	10.7	21.5	0.25	159	13.9	9.3	0.11	61	15.4	3.9	0.04
75	92	948	9.9	9.4	7.3	7.5	7.6	1.53	4.5	3.4	0.56	1.94	7.4	92	3.25	0.432	0.427	2.3	0.07	856	976	68	18	A	U	0.0324	30.7	0.33	667	11.0	24.9	0.27	196	14.1	12.2	0.13	84	15.5	5.7	0.06
80	97	942	10.3	9.8	7.5	7.8	7.9	1.57	4.6	3.7	0.55	2.06	7.9	91	3.26	0.419	0.413	2.5	0.08	906	976	71	19	A	U	0.0363	34.2	0.35	694	11.3	28.4	0.29	233	14.2	15.3	0.16	109	15.7	7.8	0.08
85	102	935	10.7	10.1	7.8	8.0	8.1	1.61	4.7	3.9	0.54	2.17	8.5	91	3.27	0.407	0.402	2.6	0.08	955	976	74	20	A	U	0.0402	37.6	0.37	716	11.5	31.9	0.31	269	14.4	18.7	0.18	136	15.8	10.2	0.10
90	107	929	11.1	10.5	8.0	8.3	8.4	1.65	4.7	4.1	0.53	2.29	9.0	90	3.28	0.396	0.391	2.7	0.09	1002	976	77	21	A	U	0.0442	41.1	0.38	734	11.8	35.5	0.33	303	14.6	22.2	0.21	164	15.9	12.9	0.12
95	112	922	11.5	10.8	8.2	8.5	8.6	1.69	4.8	4.2	0.52	2.40	9.5	90	3.29	0.387	0.382	2.8	0.10	1048	976	79	22	A	U	0.0483	44.5	0.40	748	12.1	39.0	0.35	335	14.8	25.7	0.23	191	16.1	15.8	0.14
100	117	914	11.8	11.2	8.5	8.7	8.8	1.73	4.9	4.4	0.52	2.51	10.0	89	3.31	0.379	0.374	2.9	0.10	1093	976	82	23	A	U	0.0524	47.9	0.41	758	12.3	42.4	0.36	365	14.9	29.3	0.25	218	16.2	18.8	0.16
105	122	907	12.1	11.5	8.7	8.9	9.1	1.77	4.9	4.6	0.51	2.62	10.5	89	3.32	0.371	0.367	3.0	0.11	1136	976	84	24	A	U	0.0566	51.3	0.42	766	12.6	45.8	0.37	392	15.1	33.0	0.27	244	16.4	21.9	0.18
110	127	899	12.5	11.8	8.9	9.1	9.3	1.80	5.0	4.7	0.50	2.73	11.0	88	3.34	0.365	0.360	3.1	0.11	1178	976	86	25	A	U	0.0607	54.6	0.43	771	12.8	49.2	0.39	417	15.3	36.6	0.29	269	16.5	25.2	0.20
115	132	891	12.8	12.1	9.1	9.3	9.4	1.84	5.0	4.9	0.50	2.84	11.4	88	3.35	0.359	0.355	3.2	0.11	1219	976	89	25	A	U	0.0650	57.9	0.44	775	13.1	52.5	0.40	439	15.5	40.1	0.30	293	16.7	28.5	0.22
120	137	883	13.1	12.4	9.2	9.5	9.6	1.87	5.1	5.0	0.49	2.94	11.9	87	3.37	0.354	0.350	3.3	0.12	1258	976	91	26	A	U	0.0692	61.1	0.45	778	13.3	55.7	0.41	459	15.6	43.6	0.32	315	16.8	31.8	0.23
125	142	875	13.4	12.7	9.4	9.7	9.8	1.91	5.1	5.1	0.49	3.05	12.3	87	3.38	0.349	0.345	3.4	0.12	1296	976	93	27	A	U	0.0735	64.3	0.45	779	13.6	58.9	0.41	478	15.8	47.1	0.33	336	17.0	35.1	0.25
130	147	867	13.7	13.0	9.6	9.9	10.0	1.94	5.1	5.3	0.49	3.16	12.7	86	3.40	0.345	0.341	3.4	0.13	1332	976	94	27	A	U	0.0777	67.4	0.46	779	13.8	62.0	0.42	494	16.0	50.5	0.34	356	17.1	38.5	0.26
135	152	859	14.0	13.2	9.7	10.0	10.1	1.97	5.2	5.4	0.48	3.26	13.1	85	3.41	0.341	0.337	3.5	0.13	1368	976	96	28	A	U	0.0820	70.4	0.46	778	14.0	65.1	0.43	509	16.2	53.9	0.35	374	17.3	41.8	0.27
140	157	850	14.2	13.5	9.9	10.2	10.3	2.00	5.2	5.5	0.48	3.37	13.5	85	3.43	0.338	0.334	3.6	0.14	1402	976	98	29	A	U	0.0862	73.3	0.47	776	14.3	68.0	0.43	521	16.3	57.1	0.36	391	17.4	45.0	0.29
145	162	842	14.5	13.8	10.0	10.3	10.4	2.03	5.2	5.6	0.48	3.47	13.9	84	3.45	0.334	0.331	3.7	0.14	1435	976	99	29	A	U	0.0905	76.2	0.47	773	14.5	70.9	0.44	533	16.5	60.3	0.37	407	17.6	48.3	0.30
150	167	834	14.8	14.0	10.2	10.4	10.6	2.06	5.3	5.7	0.47	3.57	14.3	84	3.46	0.332	0.328	3.7	0.14	1467	976	101	30	A	U	0.0947	79.0	0.47	771	14.7	73.7	0.44	543	16.7	63.4	0.38	421	17.7	51.5	0.31
155	172	825	15.0	14.3	10.3	10.6	10.7	2.09	5.3	5.8	0.47	3.67	14.6	83	3.48	0.329	0.326	3.8	0.15	1498	976	102	30	B	U	0.0989	81.6	0.47	766	14.9	76.4	0.44	551	16.9	66.3	0.38	433	17.9	54.5	0.32
160	177	817	15.3	14.5	10.4	10.7	10.8	2.12	5.3	5.8	0.47	3.78	15.0	82	3.50	0.327	0.323	3.8	0.15	1527	976	104	31	B	U	0.1031	84.2	0.47	762	15.2	79.0	0.45	559	17.0	69.2	0.39	445	18.0	57.5	0.32
165	182	808	15.5	14.8	10.6	10.8	10.9	2.15	5.4	5.9	0.47	3.88	15.3	82	3.52	0.325	0.322	3.9	0.15	1556	976	105	31	B	U	0.1073	86.7	0.48	757	15.4	81.5	0.45	565	17.2	71.9	0.39	455	18.2	60.4	0.33
170	187	800	15.8	15.0	10.7	10.9	11.1	2.18	5.4	6.0	0.47	3.98	15.7	81	3.54	0.323	0.320	4.0	0.15	1584	976	106	32	B	U	0.1115	89.2	0.48	753	15.6	84.0	0.45	571	17.4	74.7	0.40	465	18.3	63.3	0.34
175	192	791	16.0	15.2	10.8	11.1	11.2	2.20	5.4	6.1	0.46	4.08	16.0	81	3.56	0.322	0.318	4.0	0.16	1611	976	107	32	B	U	0.1155	91.4	0.48	747	15.8	86.3	0.45	575	17.5	77.2	0.40	473	18.5	66.0	0.34
180	197	783	16.3	15.5	10.9	11.2	11.3	2.23	5.4	6.1	0.46	4.18	16.3	80	3.57	0.320	0.317	4.0	0.16	1637	976	108	33	B	U	0.1197	93.7	0.47	742	16.0	88.6	0.45	579	17.7	79.7	0.40	481	18.6	68.7	0.35

Table A2. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 6 m Initial Density = 1600 stems/ha																																								
5	22	1599	1.1	1.0	1.7	1.8	1.8	0.68	1.4	0.2	0.88	0.36	0.1	198	2.50	1.384	1.368	0.1	0.00	194	1531	10	6	A	U	0.0001	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	27	1597	2.0	1.8	2.2	2.3	2.4	0.74	1.8	0.3	0.84	0.43	0.5	134	2.50	1.074	1.060	0.4	0.00	248	1531	17	7	A	U	0.0003	0.5	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	32	1593	2.8	2.6	2.7	2.8	2.9	0.80	2.1	0.5	0.80	0.50	1.0	116	2.51	0.881	0.868	0.6	0.01	309	1531	24	8	A	U	0.0009	1.4	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	37	1588	3.5	3.3	3.2	3.3	3.4	0.86	2.4	0.7	0.76	0.59	1.6	109	2.51	0.751	0.739	0.8	0.01	375	1531	31	9	A	U	0.0016	2.6	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	42	1581	4.2	3.9	3.6	3.8	3.9	0.92	2.7	1.0	0.72	0.68	2.2	105	2.51	0.658	0.648	1.1	0.02	445	1531	38	11	A	U	0.0027	4.3	0.10	2	9.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	47	1573	4.8	4.5	4.0	4.3	4.4	0.98	2.9	1.3	0.69	0.78	2.9	103	2.52	0.589	0.579	1.3	0.03	517	1531	45	12	A	U	0.0041	6.5	0.14	25	9.0	0.3	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	52	1564	5.4	5.1	4.5	4.7	4.8	1.04	3.1	1.5	0.66	0.88	3.6	102	2.53	0.536	0.527	1.5	0.04	591	1531	51	14	A	U	0.0058	9.0	0.17	98	9.0	1.4	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	57	1554	6.0	5.6	4.9	5.1	5.2	1.10	3.3	1.8	0.63	0.99	4.4	101	2.54	0.494	0.486	1.8	0.04	665	1531	57	15	A	U	0.0077	12.0	0.21	214	9.1	3.3	0.06	2	12.5	0.1	0.00	0	0.0	0.0	0.00
45	62	1543	6.5	6.1	5.2	5.5	5.6	1.15	3.5	2.1	0.61	1.09	5.1	100	2.55	0.461	0.453	2.0	0.05	739	1531	63	17	A	U	0.0099	15.2	0.24	349	9.2	6.0	0.10	7	12.8	0.3	0.00	0	0.0	0.0	0.00
50	67	1531	7.0	6.6	5.6	5.9	6.0	1.20	3.6	2.4	0.59	1.19	5.9	100	2.56	0.433	0.426	2.2	0.06	812	1531	69	18	A	U	0.0123	18.8	0.28	482	9.4	9.3	0.14	18	13.0	0.8	0.01	2	14.4	0.1	0.00
55	72	1517	7.5	7.0	5.9	6.3	6.4	1.25	3.7	2.6	0.57	1.30	6.6	99	2.57	0.411	0.404	2.4	0.07	884	1531	74	20	A	U	0.0149	22.6	0.31	602	9.5	12.9	0.18	38	13.1	1.7	0.02	6	14.7	0.3	0.00
60	77	1503	7.9	7.4	6.3	6.6	6.7	1.30	3.8	2.9	0.56	1.40	7.4	98	2.58	0.392	0.385	2.6	0.08	954	1531	79	21	A	U	0.0176	26.5	0.34	706	9.8	16.9	0.22	66	13.3	3.2	0.04	13	14.9	0.7	0.01
65	82	1488	8.3	7.8	6.6	6.9	7.0	1.35	3.9	3.2	0.54	1.51	8.1	98	2.59	0.376	0.369	2.8	0.08	1022	1531	84	22	A	U	0.0206	30.6	0.37	793	10.0	21.1	0.26	102	13.4	5.3	0.06	25	15.0	1.4	0.02
70	87	1473	8.7	8.2	6.9	7.2	7.3	1.39	4.0	3.4	0.53	1.61	8.9	97	2.61	0.362	0.356	3.0	0.09	1088	1531	89	24	A	U	0.0236	34.8	0.40	866	10.2	25.4	0.29	144	13.6	8.0	0.09	42	15.1	2.5	0.03
75	92	1456	9.1	8.6	7.1	7.5	7.6	1.44	4.1	3.6	0.52	1.72	9.6	97	2.62	0.350	0.344	3.2	0.10	1152	1531	93	25	A	U	0.0268	39.0	0.42	923	10.4	29.8	0.32	190	13.7	11.1	0.12	64	15.2	4.1	0.04
80	97	1439	9.5	9.0	7.4	7.8	7.9	1.48	4.2	3.8	0.51	1.82	10.2	96	2.64	0.340	0.334	3.3	0.11	1214	1531	97	26	A	U	0.0301	43.3	0.45	970	10.7	34.3	0.35	238	13.8	14.7	0.15	90	15.3	6.1	0.06
85	102	1421	9.9	9.3	7.7	8.0	8.1	1.52	4.2	4.1	0.50	1.93	10.9	96	2.65	0.331	0.326	3.5	0.11	1274	1531	101	27	A	U	0.0335	47.6	0.47	1007	10.9	38.7	0.38	286	14.0	18.5	0.18	119	15.5	8.4	0.08
90	107	1403	10.2	9.7	7.9	8.2	8.4	1.56	4.3	4.3	0.49	2.03	11.6	95	2.67	0.324	0.318	3.6	0.12	1331	1531	104	28	A	U	0.0370	51.9	0.48	1036	11.2	43.1	0.40	333	14.2	22.7	0.21	151	15.6	11.2	0.10
95	112	1385	10.6	10.0	8.1	8.5	8.6	1.60	4.3	4.4	0.49	2.13	12.2	94	2.69	0.317	0.312	3.7	0.13	1386	1531	107	30	A	U	0.0406	56.2	0.50	1058	11.4	47.6	0.42	379	14.3	27.0	0.24	185	15.7	14.3	0.13
100	117	1366	10.9	10.3	8.3	8.7	8.8	1.63	4.4	4.6	0.48	2.23	12.8	94	2.71	0.311	0.306	3.9	0.13	1438	1531	110	30	B	U	0.0441	60.3	0.51	1074	11.6	51.9	0.44	422	14.5	31.5	0.27	219	15.8	17.6	0.15
105	122	1347	11.2	10.6	8.5	8.9	9.1	1.67	4.4	4.8	0.47	2.33	13.4	93	2.72	0.306	0.301	4.0	0.14	1488	1531	113	31	B	U	0.0479	64.5	0.53	1085	11.9	56.1	0.46	463	14.6	36.0	0.29	254	16.0	21.3	0.17
110	127	1327	11.6	10.9	8.7	9.1	9.3	1.71	4.5	4.9	0.47	2.43	13.9	93	2.75	0.302	0.297	4.1	0.14	1536	1531	116	32	B	U	0.0516	68.5	0.54	1092	12.1	60.3	0.47	500	14.8	40.5	0.32	288	16.1	25.1	0.20
115	132	1308	11.9	11.2	8.9	9.3	9.4	1.74	4.5	5.1	0.46	2.54	14.5	92	2.77	0.298	0.293	4.2	0.15	1581	1531	118	33	B	U	0.0554	72.4	0.55	1096	12.3	64.4	0.49	534	14.9	45.0	0.34	321	16.2	29.0	0.22
120	137	1288	12.2	11.5	9.1	9.5	9.6	1.77	4.6	5.2	0.46	2.64	15.0	91	2.79	0.294	0.289	4.3	0.16	1625	1531	120	34	B	U	0.0592	76.2	0.56	1096	12.6	68.3	0.50	565	15.1	49.4	0.36	352	16.4	33.0	0.24
125	142	1268	12.5	11.8	9.3	9.6	9.8	1.81	4.6	5.4	0.46	2.74	15.5	91	2.81	0.291	0.287	4.4	0.16	1666	1531	122	35	B	U	0.0630	79.9	0.56	1094	12.8	72.1	0.51	593	15.3	53.8	0.38	382	16.5	37.0	0.26
130	147	1249	12.8	12.1	9.4	9.8	10.0	1.84	4.7	5.5	0.45	2.83	16.0	90	2.83	0.288	0.284	4.5	0.16	1705	1531	124	35	B	U	0.0669	83.6	0.57	1091	13.0	75.9	0.52	618	15.4	58.1	0.39	411	16.6	41.1	0.28
135	152	1229	13.0	12.4	9.6	10.0	10.1	1.87	4.7	5.6	0.45	2.93	16.4	89	2.85	0.286	0.282	4.5	0.17	1742	1531	126	36	B	U	0.0708	87.0	0.57	1085	13.3	79.4	0.52	639	15.6	62.2	0.41	437	16.8	45.1	0.30
140	157	1209	13.3	12.6	9.7	10.1	10.3	1.90	4.8	5.7	0.45	3.03	16.9	89	2.88	0.284	0.280	4.6	0.17	1778	1531	127	37	B	U	0.0747	90.3	0.57	1078	13.5	82.9	0.53	658	15.8	66.2	0.42	461	16.9	49.1	0.31
145	162	1190	13.6	12.9	9.9	10.3	10.4	1.93	4.8	5.8	0.44	3.13	17.3	88	2.90	0.283	0.278	4.7	0.18	1811	1531	129	37	B	U	0.0787	93.6	0.58	1070	13.7	86.2	0.53	675	15.9	70.1	0.43	483	17.1	53.1	0.33
150	167	1171	13.9	13.2	10.0	10.4	10.6	1.96	4.8	5.9	0.44	3.23	17.7	87	2.92	0.281	0.277	4.7	0.18	1843	1531	130	38	B	U	0.0826	96.7	0.58	1061	13.9	89.4	0.53	689	16.1	73.8	0.44	504	17.2	57.0	0.34
155	172	1151	14.1	13.4	10.2	10.5	10.7	1.99	4.9	6.0	0.44	3.33	18.1	86	2.95	0.280	0.276	4.8	0.18	1874	1531	131	38	B	U	0.0865	99.6	0.58	1050	14.2	92.4	0.54	701	16.2	77.4	0.45	522	17.4	60.7	0.35
160	177	1132	14.4	13.7	10.3	10.7	10.8	2.02	4.9	6.1	0.44	3.43	18.4	86	2.97	0.279	0.275	4.9	0.19	1902	1531	132	39	B	U	0.0905	102.5	0.58	1039	14.4	95.4	0.54	711	16.4	80.8	0.46	538	17.5	64.3	0.36
165	182	1114	14.6	13.9	10.4	10.8	10.9	2.05	4.9	6.1	0.44	3.53	18.8	85	3.00	0.278	0.274	4.9	0.19	1929	1531	133	39	B	U	0.0945	105.3	0.58	1029	14.6	98.3	0.54	719	16.6	84.2	0.46	553	17.6	67.9	0.37
170	187	1095	14.9	14.2	10.5	10.9	11.1	2.08	5.0	6.2	0.44	3.62	19.1	84	3.02	0.277	0.273	4.9	0.19	1955	1531	134	40	B	U	0.0984	107.8	0.58	1016	14.8	100.9	0.54	725	16.7	87.3	0.47	566	17.8	71.3	0.38
175	192	1077	15.2	14.4	10.6	11.0	11.2	2.11	5.0	6.3	0.44	3.72	19.4	84	3.05	0.277	0.273	5.0	0.19	1980	1531	135	40	B	U	0.1024	110.3	0.57	1004	15.0	103.5	0.54	730	16.9	90.3	0.47	578	17.9	74.7	0.39
180	197	1059	15.4	14.6	10.7	11.1	11.3	2.13	5.0	6.3	0.43	3.82	19.7	83	3.07	0.276	0.272	5.0	0.20	2003	1531	136	40	B	U	0.1064	112.7	0.57	992	15.2	105.9	0.54	734	17.1	93.2	0.47	588	18.1	77.8	0.39
SI = 6 m Initial Density = 2000 stems/ha																																								
5	22	1998	1.0	0.9	1.7	1.8	1.8	0.68	1.4	0.2	0.87	0.36	0.2	210	2.24	1.240	1.224	0.2	0.00	241	1892	12	7	A	U	0.0001	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	27	1995	1.9	1.7	2.2	2.3	2.4	0.73	1.7	0.3	0.83	0.42	0.6	140	2.24	0.963	0.948	0.4	0.01	303	1892	20	8	A	U	0.0003	0.6	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	32	1989	2.7	2.5	2.7	2.8	2.9	0.78	2.0	0.5	0.78	0.49	1.1	121	2.24	0.790	0.777	0.7	0.01	373	1892	28	10	A	U	0.0008	1.5	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	37	1981	3.4	3.1	3.1	3.3	3.4	0.84	2.3	0.8	0.74	0.57	1.8	113	2.25	0.673	0.662	1.0	0.02	449	1892	37	11	A	U	0.0015	2.9	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	42	1971	4.0	3.7	3.6	3.8	3.9	0.90	2.6	1.0	0.70	0.65	2.5	109	2.25	0.590	0.580	1.2	0.02	530	1892	45	13	A	U	0.0024	4.8	0.11	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	47	1958	4.6	4.3	4.0	4.3	4.4	0.96	2.8	1.3	0.67	0.75	3.3	106	2.26	0.529	0.519	1.5	0.03	612	1892	52	15	A	U	0.0037	7.2	0.15	18	8.9	0.2	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	52	1944	5.2	4.8	4.4	4.7	4.8	1.02	3.0	1.6	0.64	0.84	4.1	105	2.27	0.482	0.473	1.8	0.04	696	1892	60	16	A	U	0.0052	10.1	0.19	84	8.9	1.1	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	57	1929	5.7	5.3	4.8	5.1	5.2	1.07	3.2	1.9	0.62	0.94	4.9	104	2.28	0.444	0.436	2.1	0.05	780	1892	67	18	A	U	0.0069	13.4	0.23	203	8.9	3.0	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	62	1911	6.2	5.8	5.2	5.5	5.6	1.12	3.3	2.2	0.59	1.03	5.8	103	2.29	0.415	0.407	2.3	0.06	864	1892	74	20	A	U	0.0089	17.0	0.27	354	9.0	5.8	0.09	4	12.8	0.2	0.00	0	0.0	0.0	0.00
50	67	1892	6.7	6.3	5.5	5.9	6.0	1.17	3.4	2.4	0.57	1.13	6.6	102	2.30	0.391	0.383	2.6	0.07	946	1892	81	21	A	U	0.0111	21.0	0.31	510	9.2	9.3	0.14	13	12.9	0.5	0.01	0	0.0	0.0	0.00
55	72	1872	7.1	6.7	5.9	6.2	6.4	1.22	3.5	2.7	0.56	1.23	7.5	102	2.31	0.371	0.363	2.8	0.08	1026	1892	87	23	A	U	0.0135	25.2	0.35	657	9.4	13.3	0.18	28	13.1	1.3	0.02	4	14.5	0.2	0.00
60	77	1850	7.6	7.1	6.2	6.6	6.7	1.27	3.6	3.0	0.54	1.33	8.3	101	2.32	0.354	0.347	3.0	0.09	1105	1892	93	25	A	U	0.0160	29.6	0.38	786	9.6	17.7	0.23	54	13.2	2.6	0.03	9	14.7	0.5	0.01
65	82	1827	8.0	7.5	6.5	6.9	7.0	1.31	3.7	3.2	0.53	1.43	9.2	100	2.34	0.340	0.333	3.2	0.10	1181	1892	98	26	A	U	0.0187	34.2	0.42	897	9.8	22.4	0.27	88	13.3	4.5	0.05	18	14.9	1.0	0.01
70	87	1803	8.4	7.9	6.8	7.2	7.3	1.36	3.8	3.5	0.51	1.53	10.0	100	2.36	0.328	0.322	3.4	0.10	1254	1892	103	28	A	U	0.0215	38.8	0.44	988	10.0	27.2	0.31	130	13.4	7.0	0.08	33	15.0	2.0	0.02
75	92	1778	8.8	8.3	7.1	7.5	7.6	1.40	3.9	3.7	0.50	1.62	10.8	99	2.37	0.318	0.312	3.6	0.11	1324	1892	108	29	A	U	0.0245	43.5	0.47	1063	10.2	32.1	0.35	178	13.6	10.2	0.11	52	15.1	3.3	0.04
80	97	1752	9.2	8.6	7.3	7.7	7.9	1.44	3.9	3.9	0.49	1.72	11.5	99	2.39	0.309	0.303	3.8	0.12	1391	1892	112	30	B	U	0.0276	48.3	0.50	1123	10.4	37.0	0.38	230	13.7	13.8	0.14	77	15.2	5.1	0.05
85	102	1726	9.5	9.0	7.6	8.0	8.1	1.48	4.0	4.1	0.48	1.82	12.3	98	2.41	0.301	0.296	4.0	0.13	1456	1892	116	31	B	U	0.0307	53.0	0.52	1171	10.6	42.0	0.41	284	13.8	17.9	0.17	106	15.3	7.3	0.07
90	107	1698	9.9	9.3	7.8	8.2	8.4	1.52	4.1	4.3	0.48	1.92	13.0	97	2.43	0.295	0.289	4.1	0.14	1517	1892	120	33	B	U	0.0340	57.7	0.54	1207	10.9	46.9	0.44	337	14.0	22.3	0.21	139	15.4	10.0	0.09
95	112	1671	10.2	9.6	8.0	8.5	8.6	1.56	4.1	4.5	0.47	2.02	13.7	97	2.45	0.289	0.284	4.3	0.14	1576	1892	123	34	B	U	0.0373	62.3	0.55	1234	11.1	51.8	0.46	390	14.1	26.9	0.24	175	15.5	13.1	0.12
100	117	1643	10.5	10.0	8.3	8.7	8.8	1.59	4.2	4.7	0.46	2.11	14.3	96	2.47	0.284	0.279	4.4	0.15	1631	1892	127	35	B	U	0.0407	66.9	0.57	1254	11.3	56.6	0.48	441	14.3	31.8	0.27	212	15.7	16.6	0.14
105	122	1615	10.9	10.3	8.5	8.9	9.1	1.63	4.2	4.9	0.46	2.21	15.0	95	2.49	0.280	0.275	4.5	0.16	1684	1892	129	36	B	U	0.0442	71.4	0.58	1268	11.6	61.3	0.50	489	14.4	36.7	0.30	250	15.8	20.3	0.17
110	127	1586	11.2	10.6	8.7	9.1	9.3	1.66	4.3	5.0	0.45	2.31	15.5	95	2.51	0.276	0.271	4.7	0.16	1734	1892	132	37	B	U	0.0477	75.7	0.59	1275	11.8	65.8	0.52	533	14.6	41.7	0.33	288	15.9	24.3	0.19
115	132	1558	11.5	10.9	8.8	9.3	9.4	1.70	4.3	5.2	0.45	2.41	16.1	94	2.53	0.273	0.268	4.8	0.17	1781	1892	135	37	B	U	0.0513	79.9	0.60	1279	12.0	70.3	0.53	574	14.7	46.7	0.35	325	16.1	28.5	0.22
120	137	1530	11.8	11.2	9.0	9.5	9.6	1.73	4.4	5.3	0.44	2.50	16.7	93	2.56	0.271	0.266	4.9	0.17	1825	1892	137	38	B	U	0.0550	84.1	0.61	1278	12.3	74.6	0.54	611	14.9	51.6	0.38	362	16.2	32.8	0.24
125	142	1501	12.1	11.4	9.2	9.6	9.8	1.76	4.4	5.4	0.44	2.60	17.2	92	2.58	0.268	0.263	4.9	0.18	1867	1892	139	39	B	U	0.0586	88.0	0.62	1274	12.5	78.7	0.55	644	15.0	56.3	0.40	396	16.3	37.1	0.26
130	147	1473	12.4	11.7	9.3	9.8	10.0	1.80	4.5	5.6	0.44	2.70	17.7	92	2.61	0.266	0.261	5.0	0.18	1906	1892	140	40	B	U	0.0623	91.8	0.62	1267	12.7	82.7	0.56	674	15.2	61.1	0.41	429	16.4	41.5	0.28
135	152	1445	12.6	12.0	9.5	9.9	10.1	1.83	4.5	5.7	0.43	2.79	18.1	91	2.63	0.265	0.260	5.1	0.19	1943	1892	142	40	B	U	0.0661	95.5	0.63	1259	12.9	86.6	0.57	700	15.4	65.6	0.43	460	16.6	45.9	0.30
140	157	1418	12.9	12.3	9.7	10.1	10.3	1.86	4.5	5.8	0.43	2.89	18.6	90	2.66	0.263	0.258	5.2	0.19	1978	1892	143	41	B	U	0.0699	99.1	0.63	1248	13.2	90.3	0.57	723	15.5	70.1	0.45	488	16.7	50.3	0.32
145	162	1391	13.2	12.5	9.8	10.2	10.4	1.89	4.6	5.9	0.43	2.99	19.0	89	2.68	0.262	0.257	5.2	0.20	2011	1892	145	42	B	U	0.0737	102.5	0.63	1237	13.4	93.8	0.58	743	15.7	74.3	0.46	515	16.8	54.6	0.34
150	167	1364	13.5	12.8	9.9	10.4	10.6	1.92	4.6	6.0	0.43	3.09	19.4	89	2.71	0.261	0.256	5.3	0.20	2042	1892	146	42	B	U	0.0775	105.7	0.63	1223	13.6	97.2	0.58	760	15.8	78.4	0.47	538	17.0	58.8	0.35
155	172	1337	13.7	13.0	10.1	10.5	10.7	1.95	4.7	6.1	0.43	3.18	19.8	88	2.73	0.260	0.256	5.3	0.20	2070	1892	147	43	B	U	0.0813	108.7	0.63	1208	13.8	100.4	0.58	774	16.0	82.3	0.48	560	17.1	62.9	0.37
160	177	1311	14.0	13.3	10.2	10.6	10.8	1.98	4.7	6.2	0.43	3.28	20.2	87	2.76	0.260	0.255	5.4	0.21	2097	1892	148	43	B	U	0.0852	111.7	0.63	1193	14.0	103.5	0.58	786	16.2	86.1	0.49	579	17.3	66.9	0.38
165	182	1285	14.3	13.5	10.3	10.8	10.9	2.01	4.7	6.2	0.42	3.38	20.5	87	2.79	0.259	0.255	5.4	0.21	2122	1892	148	43	B	U	0.0890	114.4	0.63	1177	14.3	106.4	0.58	795	16.3	89.6	0.49	597	17.4	70.8	0.39
170	187	1260	14.5	13.8	10.4	10.9	11.1	2.04	4.8	6.3	0.42	3.47	20.8	86	2.82	0.259	0.255	5.5	0.21	2146	1892	149	44	B	U	0.0929	117.1	0.63	1161	14.5	109.2	0.58	802	16.5	93.0	0.50	612	17.6	74.5	0.40
175	192	1236	14.8	14.0	10.5	11.0	11.2	2.06	4.8	6.4	0.42	3.57	21.2	85	2.84	0.259	0.255	5.5	0.21	2168	1892	150	44	B	U	0.0968	119.6	0.62	1144	14.7	111.8	0.58	808	16.6	96.3	0.50	626	17.7	78.2	0.41
180	197	1212	15.0	14.3	10.6	11.1	11.3	2.09	4.8	6.4	0.42	3.67	21.4	84	2.87	0.259	0.255	5.5	0.22	2189	1892	150	44	B	U	0.1007	122.0	0.62	1128	14.9	114.4	0.58	812	16.8	99.3	0.50	637	17.8	81.6	0.41

Table A3. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 6 m Initial Density = 3000 stems/ha																																								
5	22	2997	0.9	0.8	1.7	1.8	1.8	0.67	1.3	0.2	0.85	0.36	0.2	234	1.83	1.015	0.999	0.2	0.00	356	2774	17	11	A	U	0.0000	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	27	2989	1.7	1.6	2.1	2.3	2.4	0.72	1.6	0.4	0.80	0.40	0.7	151	1.83	0.789	0.775	0.5	0.01	437	2774	28	12	A	U	0.0002	0.7	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	32	2976	2.4	2.2	2.6	2.8	2.9	0.77	1.9	0.6	0.76	0.46	1.4	129	1.83	0.648	0.635	0.9	0.01	528	2774	39	14	A	U	0.0006	1.8	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	37	2959	3.1	2.9	3.1	3.3	3.4	0.82	2.2	0.8	0.71	0.53	2.2	120	1.84	0.553	0.542	1.2	0.02	626	2774	49	16	A	U	0.0012	3.5	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	42	2938	3.7	3.4	3.5	3.8	3.9	0.87	2.4	1.1	0.67	0.61	3.1	115	1.84	0.485	0.475	1.6	0.03	728	2774	60	18	A	U	0.0020	5.9	0.14	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	47	2912	4.2	3.9	3.9	4.3	4.4	0.92	2.6	1.4	0.64	0.69	4.1	112	1.85	0.435	0.426	2.0	0.04	833	2774	70	20	A	U	0.0030	8.8	0.19	8	8.8	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	52	2883	4.8	4.4	4.3	4.7	4.8	0.97	2.7	1.7	0.61	0.77	5.1	110	1.86	0.397	0.388	2.3	0.05	938	2774	80	22	A	U	0.0043	12.3	0.24	54	8.7	0.7	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	57	2850	5.3	4.9	4.7	5.1	5.2	1.02	2.9	2.0	0.58	0.85	6.2	109	1.87	0.367	0.359	2.7	0.06	1044	2774	90	24	A	U	0.0057	16.3	0.28	167	8.7	2.3	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	62	2814	5.7	5.4	5.1	5.5	5.6	1.07	3.0	2.3	0.56	0.94	7.2	108	1.89	0.343	0.335	3.0	0.08	1147	2774	98	26	A	U	0.0074	20.8	0.33	336	8.8	5.0	0.08	2	12.2	0.1	0.00	0	0.0	0.0	0.00
50	67	2774	6.2	5.8	5.4	5.9	6.0	1.12	3.1	2.6	0.54	1.03	8.3	107	1.90	0.324	0.316	3.3	0.09	1248	2774	107	28	A	U	0.0092	25.6	0.38	533	8.9	8.8	0.13	5	12.7	0.2	0.00	0	0.0	0.0	0.00
55	72	2732	6.6	6.2	5.8	6.2	6.4	1.16	3.2	2.8	0.52	1.11	9.4	106	1.91	0.308	0.301	3.6	0.10	1346	2774	115	30	B	U	0.0112	30.7	0.42	733	9.1	13.4	0.19	14	12.9	0.6	0.01	0	0.0	0.0	0.00
60	77	2687	7.0	6.6	6.1	6.5	6.7	1.21	3.3	3.1	0.51	1.20	10.4	106	1.93	0.295	0.288	3.9	0.11	1441	2774	122	32	B	U	0.0134	36.0	0.47	918	9.2	18.5	0.24	32	13.0	1.5	0.02	4	14.4	0.2	0.00
65	82	2641	7.4	7.0	6.4	6.9	7.0	1.25	3.4	3.4	0.49	1.29	11.4	105	1.95	0.284	0.277	4.2	0.12	1531	2774	128	34	B	U	0.0157	41.5	0.50	1083	9.4	24.1	0.29	59	13.1	2.9	0.04	9	14.6	0.5	0.01
70	87	2592	7.8	7.3	6.7	7.2	7.3	1.29	3.5	3.6	0.48	1.38	12.4	104	1.96	0.275	0.268	4.4	0.13	1617	2774	135	36	B	U	0.0181	47.0	0.54	1222	9.6	29.9	0.34	97	13.2	5.1	0.06	18	14.8	1.0	0.01
75	92	2543	8.2	7.7	6.9	7.4	7.6	1.33	3.5	3.8	0.47	1.47	13.3	103	1.98	0.267	0.261	4.7	0.14	1699	2774	140	37	B	U	0.0207	52.7	0.57	1338	9.8	35.8	0.39	145	13.3	7.9	0.09	32	14.9	1.9	0.02
80	97	2492	8.5	8.0	7.2	7.7	7.9	1.37	3.6	4.1	0.46	1.56	14.2	103	2.00	0.260	0.254	4.9	0.15	1777	2774	145	39	B	U	0.0234	58.3	0.60	1432	10.0	41.9	0.43	200	13.4	11.5	0.12	52	15.0	3.3	0.03
85	102	2440	8.9	8.4	7.4	8.0	8.1	1.41	3.7	4.3	0.45	1.65	15.1	102	2.02	0.255	0.249	5.1	0.16	1849	2774	150	40	B	U	0.0262	63.9	0.62	1506	10.2	47.9	0.47	261	13.6	15.7	0.15	78	15.1	5.2	0.05
90	107	2388	9.2	8.7	7.7	8.2	8.4	1.45	3.7	4.5	0.45	1.74	15.9	101	2.05	0.250	0.244	5.2	0.17	1918	2774	154	42	B	U	0.0291	69.4	0.65	1564	10.4	53.8	0.50	324	13.7	20.4	0.19	109	15.2	7.5	0.07
95	112	2335	9.5	9.0	7.9	8.4	8.6	1.48	3.8	4.7	0.44	1.83	16.7	100	2.07	0.246	0.240	5.4	0.18	1982	2774	158	43	B	U	0.0320	74.8	0.67	1606	10.6	59.6	0.53	389	13.8	25.5	0.23	145	15.3	10.4	0.09
100	117	2282	9.9	9.3	8.1	8.6	8.8	1.52	3.8	4.8	0.43	1.92	17.4	100	2.09	0.242	0.237	5.6	0.19	2042	2774	161	44	B	U	0.0351	80.1	0.68	1636	10.8	65.4	0.56	454	13.9	31.0	0.26	185	15.4	13.8	0.12
105	122	2230	10.2	9.6	8.3	8.8	9.1	1.55	3.9	5.0	0.43	2.01	18.2	99	2.12	0.240	0.234	5.7	0.20	2097	2774	164	45	B	U	0.0382	85.2	0.70	1655	11.1	70.9	0.58	516	14.1	36.7	0.30	228	15.5	17.6	0.14
110	127	2177	10.5	9.9	8.5	9.0	9.3	1.59	3.9	5.2	0.42	2.10	18.8	98	2.14	0.237	0.232	5.8	0.20	2149	2774	167	46	B	U	0.0414	90.1	0.71	1665	11.3	76.3	0.60	575	14.2	42.4	0.33	272	15.6	21.8	0.17
115	132	2125	10.8	10.2	8.7	9.2	9.4	1.62	4.0	5.3	0.42	2.19	19.4	97	2.17	0.235	0.230	5.9	0.21	2197	2774	169	47	B	U	0.0447	94.9	0.72	1668	11.5	81.5	0.62	630	14.4	48.3	0.37	317	15.7	26.3	0.20
120	137	2074	11.1	10.5	8.8	9.4	9.6	1.65	4.0	5.4	0.42	2.28	20.0	97	2.20	0.234	0.228	6.0	0.21	2241	2774	171	47	B	U	0.0480	99.5	0.72	1665	11.7	86.5	0.63	681	14.5	54.1	0.39	361	15.9	31.0	0.23
125	142	2023	11.4	10.8	9.0	9.6	9.8	1.69	4.1	5.6	0.41	2.38	20.6	96	2.22	0.232	0.227	6.1	0.22	2282	2774	173	48	B	U	0.0514	103.9	0.73	1657	11.9	91.2	0.64	727	14.7	59.8	0.42	405	16.0	35.9	0.25
130	147	1973	11.7	11.1	9.2	9.7	10.0	1.72	4.1	5.7	0.41	2.47	21.1	95	2.25	0.231	0.226	6.2	0.22	2319	2774	174	49	B	U	0.0548	108.1	0.73	1644	12.2	95.8	0.65	768	14.8	65.3	0.44	447	16.1	40.9	0.28
135	152	1925	12.0	11.3	9.3	9.9	10.1	1.75	4.2	5.8	0.41	2.56	21.6	94	2.28	0.230	0.225	6.2	0.23	2354	2774	175	49	B	U	0.0583	112.2	0.74	1628	12.4	100.1	0.66	805	15.0	70.8	0.46	487	16.2	45.9	0.30
140	157	1877	12.2	11.6	9.5	10.0	10.3	1.78	4.2	5.9	0.41	2.65	22.1	93	2.31	0.230	0.225	6.3	0.23	2385	2774	176	50	B	U	0.0618	116.0	0.74	1609	12.6	104.3	0.66	837	15.1	76.0	0.48	524	16.4	50.9	0.32
145	162	1830	12.5	11.9	9.6	10.2	10.4	1.81	4.2	6.0	0.41	2.75	22.5	93	2.34	0.230	0.224	6.4	0.24	2414	2774	177	50	C	U	0.0654	119.6	0.74	1588	12.8	108.2	0.67	865	15.3	81.1	0.50	558	16.5	55.9	0.34
150	167	1784	12.8	12.1	9.7	10.3	10.6	1.84	4.3	6.1	0.40	2.84	22.9	92	2.37	0.229	0.224	6.4	0.24	2441	2774	178	51	C	U	0.0689	123.0	0.74	1565	13.0	111.9	0.67	888	15.4	85.9	0.51	590	16.6	60.8	0.36
155	172	1740	13.0	12.4	9.9	10.5	10.7	1.87	4.3	6.2	0.40	2.93	23.2	91	2.40	0.229	0.224	6.4	0.24	2465	2774	178	51	C	U	0.0725	126.2	0.73	1541	13.3	115.4	0.67	908	15.6	90.5	0.53	619	16.8	65.6	0.38
160	177	1696	13.3	12.6	10.0	10.6	10.8	1.90	4.4	6.3	0.40	3.03	23.6	90	2.43	0.230	0.224	6.5	0.25	2487	2774	178	51	C	U	0.0762	129.2	0.73	1515	13.5	118.6	0.67	924	15.7	94.8	0.53	645	16.9	70.2	0.40
165	182	1654	13.6	12.9	10.1	10.7	10.9	1.93	4.4	6.4	0.40	3.12	23.9	89	2.46	0.230	0.225	6.5	0.25	2506	2774	179	52	C	U	0.0799	132.1	0.72	1489	13.7	121.8	0.67	937	15.9	99.0	0.54	669	17.0	74.8	0.41
170	187	1613	13.8	13.1	10.2	10.8	11.1	1.96	4.4	6.4	0.40	3.21	24.2	88	2.49	0.230	0.225	6.5	0.25	2524	2774	179	52	C	U	0.0836	134.8	0.72	1463	13.9	124.7	0.67	947	16.0	102.9	0.55	689	17.2	79.1	0.42
175	192	1573	14.1	13.4	10.3	10.9	11.2	1.99	4.5	6.5	0.40	3.31	24.5	88	2.52	0.231	0.226	6.5	0.25	2541	2774	179	52	C	U	0.0872	137.2	0.71	1436	14.1	127.4	0.66	954	16.2	106.5	0.55	707	17.3	83.2	0.43
180	197	1535	14.3	13.6	10.5	11.0	11.3	2.02	4.5	6.6	0.40	3.40	24.7	87	2.55	0.231	0.226	6.5	0.25	2556	2774	178	52	C	U	0.0909	139.6	0.71	1409	14.3	130.0	0.66	959	16.4	110.0	0.56	723	17.4	87.2	0.44
SI = 6 m Initial Density = 4000 stems/ha																																								
5	22	3995	0.8	0.7	1.6	1.8	1.8	0.67	1.3	0.2	0.84	0.35	0.2	254	1.58	0.881	0.865	0.2	0.00	470	3633	22	14	A	U	0.0001	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	27	3982	1.6	1.5	2.1	2.3	2.4	0.71	1.6	0.4	0.79	0.40	0.8	160	1.58	0.685	0.671	0.6	0.01	567	3633	35	16	A	U	0.0002	0.8	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	32	3961	2.3	2.1	2.6	2.8	2.9	0.75	1.8	0.6	0.74	0.45	1.6	136	1.59	0.563	0.551	1.1	0.02	676	3633	48	18	A	U	0.0005	2.1	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	37	3934	2.9	2.7	3.0	3.3	3.4	0.80	2.1	0.9	0.69	0.51	2.5	125	1.59	0.481	0.470	1.5	0.03	792	3633	61	20	A	U	0.0010	4.0	0.11	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	42	3899	3.4	3.2	3.5	3.8	3.9	0.85	2.3	1.1	0.65	0.58	3.6	120	1.60	0.422	0.412	2.0	0.04	914	3633	74	23	A	U	0.0017	6.7	0.16	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	47	3857	4.0	3.7	3.9	4.2	4.4	0.90	2.4	1.4	0.62	0.65	4.8	117	1.61	0.379	0.370	2.4	0.05	1037	3633	87	25	A	U	0.0026	10.1	0.21	4	8.6	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	52	3809	4.5	4.2	4.3	4.7	4.8	0.95	2.6	1.7	0.59	0.72	6.0	115	1.62	0.347	0.338	2.8	0.06	1161	3633	98	28	A	U	0.0037	14.1	0.27	35	8.6	0.4	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	57	3755	4.9	4.6	4.7	5.1	5.2	0.99	2.7	2.0	0.56	0.80	7.2	113	1.63	0.321	0.313	3.2	0.08	1284	3633	110	30	B	U	0.0050	18.7	0.33	132	8.6	1.7	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	62	3697	5.4	5.1	5.0	5.5	5.6	1.04	2.8	2.3	0.54	0.88	8.5	112	1.64	0.301	0.293	3.6	0.09	1404	3633	120	32	B	U	0.0064	23.8	0.38	302	8.7	4.3	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00
50	67	3633	5.8	5.5	5.4	5.8	6.0	1.08	2.9	2.6	0.52	0.96	9.7	111	1.66	0.284	0.277	4.0	0.10	1520	3633	130	35	B	U	0.0081	29.3	0.44	521	8.8	8.1	0.12	2	12.5	0.1	0.00	0	0.0	0.0	0.00
55	72	3566	6.2	5.9	5.7	6.2	6.4	1.13	3.0	2.9	0.50	1.04	10.9	110	1.67	0.271	0.263	4.4	0.12	1632	3633	139	37	B	U	0.0098	35.1	0.49	758	8.9	13.0	0.18	8	12.7	0.3	0.00	0	0.0	0.0	0.00
60	77	3495	6.6	6.2	6.0	6.5	6.7	1.17	3.1	3.2	0.48	1.12	12.1	109	1.69	0.260	0.253	4.7	0.13	1738	3633	148	39	B	U	0.0118	41.2	0.53	990	9.0	18.6	0.24	19	12.9	0.9	0.01	2	14.1	0.1	0.00
65	82	3421	7.0	6.6	6.3	6.8	7.0	1.21	3.2	3.4	0.47	1.20	13.3	108	1.71	0.250	0.244	5.0	0.14	1840	3633	155	41	B	U	0.0139	47.4	0.58	1201	9.2	24.8	0.30	40	13.0	1.9	0.02	4	14.6	0.2	0.00
70	87	3345	7.4	7.0	6.6	7.1	7.3	1.25	3.2	3.7	0.46	1.29	14.4	107	1.73	0.243	0.236	5.3	0.16	1935	3633	162	43	B	U	0.0161	53.7	0.62	1386	9.4	31.3	0.36	72	13.1	3.7	0.04	10	14.7	0.6	0.01
75	92	3267	7.8	7.3	6.8	7.4	7.6	1.29	3.3	3.9	0.45	1.37	15.4	107	1.75	0.236	0.230	5.5	0.17	2025	3633	168	45	B	U	0.0184	60.0	0.65	1542	9.5	38.1	0.41	115	13.2	6.1	0.07	20	14.8	1.2	0.01
80	97	3188	8.1	7.6	7.1	7.7	7.9	1.33	3.4	4.1	0.44	1.45	16.4	106	1.77	0.231	0.225	5.8	0.18	2109	3633	174	46	B	U	0.0208	66.3	0.68	1669	9.7	44.9	0.46	169	13.3	9.4	0.10	35	14.9	2.2	0.02
85	102	3109	8.4	8.0	7.3	7.9	8.1	1.36	3.4	4.3	0.43	1.54	17.4	105	1.79	0.226	0.220	6.0	0.19	2187	3633	179	48	B	U	0.0234	72.6	0.71	1771	9.9	51.7	0.51	231	13.4	13.5	0.13	57	15.0	3.7	0.04
90	107	3029	8.8	8.3	7.5	8.2	8.4	1.40	3.5	4.5	0.42	1.62	18.3	104	1.82	0.223	0.217	6.2	0.20	2259	3633	183	49	B	U	0.0260	78.7	0.73	1850	10.1	58.5	0.55	299	13.5	18.2	0.17	85	15.0	5.7	0.05
95	112	2949	9.1	8.6	7.8	8.4	8.6	1.43	3.5	4.7	0.42	1.71	19.2	103	1.84	0.220	0.214	6.4	0.21	2326	3633	187	50	C	U	0.0287	84.7	0.75	1908	10.3	65.1	0.58	370	13.6	23.5	0.21	119	15.1	8.3	0.07
100	117	2870	9.4	8.9	8.0	8.6	8.8	1.47	3.6	4.9	0.41	1.79	20.0	102	1.87	0.217	0.211	6.5	0.22	2387	3633	191	51	C	U	0.0315	90.5	0.77	1950	10.5	71.6	0.61	443	13.8	29.2	0.25	158	15.2	11.4	0.10
105	122	2791	9.7	9.2	8.2	8.8	9.1	1.50	3.6	5.1	0.41	1.88	20.7	102	1.89	0.215	0.209	6.6	0.23	2443	3633	194	52	C	U	0.0344	96.1	0.79	1976	10.7	77.8	0.64	516	13.9	35.4	0.29	202	15.3	15.1	0.12
110	127	2714	10.0	9.5	8.4	9.0	9.3	1.54	3.7	5.2	0.40	1.97	21.5	101	1.92	0.213	0.207	6.8	0.23	2495	3633	196	53	C	U	0.0374	101.5	0.80	1991	10.9	83.9	0.66	586	14.0	41.7	0.33	249	15.4	19.3	0.15
115	132	2638	10.3	9.8	8.5	9.2	9.4	1.57	3.7	5.4	0.40	2.05	22.1	100	1.95	0.212	0.206	6.9	0.24	2541	3633	198	54	C	U	0.0404	106.7	0.81	1995	11.2	89.7	0.68	652	14.1	48.1	0.36	297	15.6	23.8	0.18
120	137	2563	10.6	10.1	8.7	9.4	9.6	1.60	3.8	5.5	0.40	2.14	22.7	99	1.98	0.211	0.205	7.0	0.25	2584	3633	200	55	C	U	0.0435	111.6	0.81	1990	11.4	95.2	0.69	714	14.3	54.5	0.40	347	15.7	28.8	0.21
125	142	2490	10.9	10.3	8.9	9.5	9.8	1.64	3.8	5.7	0.40	2.23	23.3	98	2.00	0.210	0.205	7.1	0.25	2622	3633	201	56	C	U	0.0467	116.3	0.82	1979	11.6	100.5	0.71	771	14.4	60.9	0.43	396	15.8	33.9	0.24
130	147	2418	11.2	10.6	9.0	9.7	10.0	1.67	3.9	5.8	0.39	2.32	23.8	97	2.03	0.210	0.204	7.1	0.26	2656	3633	202	56	C	U	0.0499	120.7	0.82	1961	11.8	105.4	0.72	823	14.6	67.2	0.46	444	15.9	39.2	0.27
135	152	2349	11.5	10.9	9.2	9.9	10.1	1.70	3.9	5.9	0.39	2.41	24.3	96	2.06	0.209	0.204	7.2	0.26	2687	3633	203	57	C	U	0.0532	125.0	0.82	1939	12.0	110.2	0.72	869	14.7	73.3	0.48	491	16.0	44.6	0.29
140	157	2281	11.8	11.1	9.3	10.0	10.3	1.73	4.0	6.0	0.39	2.50	24.8	96	2.09	0.209	0.204	7.2	0.27	2715	3633	203	57	C	U	0.0566	129.0	0.82	1913	12.2	114.6	0.73	910	14.8	79.2	0.50	535	16.1	50.1	0.32
145	162	2215	12.0	11.4	9.5	10.1	10.4	1.76	4.0	6.1	0.39	2.59	25.2	95	2.12	0.210	0.204	7.3	0.27	2740	3633	204	57	C	U	0.0599	132.7	0.82	1884	12.4	118.8	0.73	945	15.0	84.8	0.52	577	16.3	55.6	0.34
150	167	2152	12.3	11.7	9.6	10.3	10.6	1.79	4.1	6.2	0.39	2.68	25.6	94	2.16	0.210	0.204	7.3	0.27	2761	3633	204	58	C	U	0.0633	136.3	0.81	1853	12.7	122.8	0.73	976	15.1	90.3	0.54	615	16.4	60.9	0.36
155	172	2090	12.6	11.9	9.7	10.4	10.7	1.82	4.1	6.3	0.39	2.77	25.9	93	2.19	0.210	0.205	7.3	0.28	2781	3633	204	58	C	U	0.0668	139.6	0.81	1820	12.9	126.5	0.73	1001	15.3	95.4	0.55	651	16.5	66.3	0.38
160	177	2030	12.8	12.2	9.8	10.5	10.8	1.85	4.1	6.4	0.39	2.86	26.2	92	2.22	0.211	0.205	7.3	0.28	2797	3633	203	58	C	U	0.0702	142.6	0.80	1786	13.1	130.0	0.73	1022	15.4	100.3	0.57	683	16.6	71.4	0.40
165	182	1973	13.1	12.4	10.0	10.7	10.9	1.88	4.2	6.4	0.39	2.95	26.6	91	2.25	0.211	0.206	7.3	0.28	2812	3633	203	58	C	U	0.0738	145.6	0.80	1751	13.3	133.2	0.73	1039	15.6	104.9	0.58	712	16.8	76.4	0.42
170	187	1917	13.3	12.7	10.1	10.8	11.1	1.91	4.2	6.5	0.39	3.04	26.8	90	2.28	0.212	0.207	7.3	0.28	2825	3633	203	58	C	U	0.0773	148.2	0.79	1716	13.5	136.2	0.73	1052	15.7	109.3	0.58	737	16.9	81.2	0.43
175	192	1863	13.6	12.9	10.2	10.9	11.2	1.94	4.3	6.6	0.39	3.13	27.1	90	2.32	0.213	0.207	7.3	0.28	2836	3633	202	58	C	U	0.0809	150.7	0.78	1680	13.7	139.0	0.72	1061	15.9	113.3	0.59	760	17.0	85.8	0.45
180	197	1812	13.9	13.2	10.3	11.0	11.3	1.96	4.3	6.6	0.39	3.23	27.3	89	2.35	0.214	0.208	7.3	0.28	2845	3633	201	58	C	U	0.0845	153.1	0.78	1645	13.9	141.7	0.72	1068	16.1	117.1	0.59	780	17.2	90.3	0.46

Table A4. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 6 m Initial Density = 5000 stems/ha																																								
5	22	4993	0.7	0.7	1.6	1.8	1.8	0.67	1.3	0.3	0.83	0.35	0.2	272	1.42	0.789	0.774	0.3	0.00	582	4475	26	17	A	U	0.0000	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	27	4974	1.5	1.4	2.1	2.3	2.4	0.70	1.5	0.4	0.77	0.39	0.9	168	1.42	0.614	0.601	0.7	0.01	695	4475	41	19	A	U	0.0002	0.9	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	32	4945	2.1	2.0	2.5	2.8	2.9	0.75	1.8	0.6	0.72	0.44	1.8	141	1.42	0.505	0.493	1.2	0.02	819	4475	57	22	A	U	0.0005	2.3	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	37	4905	2.7	2.5	3.0	3.3	3.4	0.79	2.0	0.9	0.68	0.50	2.9	130	1.43	0.431	0.421	1.7	0.03	953	4475	72	24	A	U	0.0009	4.5	0.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	42	4854	3.3	3.0	3.4	3.8	3.9	0.84	2.2	1.2	0.64	0.56	4.1	124	1.44	0.380	0.370	2.3	0.04	1091	4475	87	27	A	U	0.0015	7.4	0.17	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	47	4794	3.8	3.5	3.8	4.2	4.4	0.88	2.3	1.5	0.60	0.62	5.4	120	1.44	0.341	0.332	2.8	0.06	1231	4475	102	30	A	U	0.0023	11.2	0.24	2	8.5	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	52	4726	4.3	4.0	4.2	4.7	4.8	0.93	2.5	1.8	0.57	0.69	6.7	118	1.45	0.312	0.303	3.3	0.07	1371	4475	115	33	B	U	0.0033	15.6	0.30	23	8.5	0.3	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	57	4649	4.7	4.4	4.6	5.1	5.2	0.97	2.6	2.1	0.54	0.76	8.1	116	1.47	0.289	0.281	3.7	0.09	1508	4475	128	36	B	U	0.0045	20.8	0.36	103	8.5	1.3	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	62	4565	5.2	4.8	4.9	5.5	5.6	1.01	2.7	2.4	0.52	0.84	9.5	115	1.48	0.271	0.263	4.2	0.10	1642	4475	140	38	B	U	0.0058	26.4	0.42	265	8.6	3.6	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00
50	67	4475	5.6	5.2	5.3	5.8	6.0	1.06	2.8	2.7	0.50	0.91	10.9	114	1.49	0.257	0.249	4.6	0.12	1771	4475	152	41	B	U	0.0073	32.5	0.48	493	8.6	7.3	0.11	0	0.0	0.0	0.00	0	0.0	0.0	0.00
55	72	4380	6.0	5.6	5.6	6.2	6.4	1.10	2.9	2.9	0.48	0.99	12.3	113	1.51	0.245	0.238	5.0	0.13	1894	4475	162	43	B	U	0.0089	38.9	0.54	756	8.8	12.3	0.17	4	12.7	0.2	0.00	0	0.0	0.0	0.00
60	77	4280	6.4	6.0	5.9	6.5	6.7	1.14	2.9	3.2	0.47	1.06	13.6	112	1.53	0.235	0.228	5.4	0.15	2011	4475	171	45	B	U	0.0107	45.6	0.59	1025	8.9	18.2	0.24	12	12.8	0.5	0.01	0	0.0	0.0	0.00
65	82	4177	6.7	6.3	6.2	6.8	7.0	1.18	3.0	3.5	0.45	1.14	14.9	111	1.55	0.227	0.220	5.7	0.16	2120	4475	180	48	B	U	0.0125	52.4	0.64	1277	9.0	24.9	0.30	28	12.9	1.3	0.02	2	14.4	0.1	0.00
70	87	4071	7.1	6.7	6.5	7.1	7.3	1.22	3.1	3.7	0.44	1.22	16.1	110	1.57	0.221	0.214	6.0	0.18	2223	4475	187	50	B	U	0.0146	59.4	0.68	1503	9.2	32.0	0.37	54	13.0	2.7	0.03	6	14.6	0.3	0.00
75	92	3964	7.4	7.0	6.7	7.4	7.6	1.25	3.1	4.0	0.43	1.30	17.3	109	1.59	0.215	0.209	6.3	0.19	2319	4475	194	51	C	U	0.0167	66.3	0.72	1697	9.4	39.4	0.43	91	13.1	4.8	0.05	13	14.7	0.8	0.01
80	97	3855	7.8	7.3	7.0	7.6	7.9	1.29	3.2	4.2	0.42	1.38	18.4	108	1.61	0.211	0.204	6.6	0.20	2407	4475	200	53	C	U	0.0190	73.2	0.75	1858	9.5	46.9	0.48	141	13.2	7.7	0.08	24	14.8	1.5	0.02
85	102	3746	8.1	7.7	7.2	7.9	8.1	1.33	3.2	4.4	0.42	1.46	19.4	107	1.63	0.207	0.201	6.8	0.22	2488	4475	205	55	C	U	0.0213	79.9	0.78	1987	9.7	54.5	0.53	201	13.3	11.5	0.11	42	14.9	2.7	0.03
90	107	3638	8.4	8.0	7.4	8.1	8.4	1.36	3.3	4.6	0.41	1.54	20.4	106	1.66	0.204	0.198	7.0	0.23	2563	4475	210	56	C	U	0.0238	86.6	0.81	2089	9.9	62.0	0.58	270	13.4	16.1	0.15	66	14.9	4.4	0.04
95	112	3530	8.8	8.3	7.7	8.4	8.6	1.40	3.3	4.8	0.40	1.62	21.3	105	1.68	0.201	0.195	7.2	0.24	2631	4475	214	57	C	U	0.0263	93.0	0.83	2165	10.1	69.3	0.62	345	13.5	21.4	0.19	97	15.0	6.6	0.06
100	117	3423	9.1	8.6	7.9	8.6	8.8	1.43	3.4	5.0	0.40	1.70	22.2	105	1.71	0.199	0.193	7.4	0.25	2692	4475	217	58	C	U	0.0290	99.2	0.85	2218	10.3	76.4	0.65	424	13.6	27.3	0.23	134	15.1	9.5	0.08
105	122	3318	9.4	8.9	8.1	8.8	9.1	1.47	3.4	5.1	0.39	1.79	23.0	104	1.74	0.198	0.192	7.5	0.25	2748	4475	220	59	C	U	0.0317	105.2	0.86	2253	10.5	83.2	0.68	503	13.7	33.6	0.27	177	15.2	13.0	0.11
110	127	3215	9.7	9.2	8.2	9.0	9.3	1.50	3.5	5.3	0.39	1.87	23.7	103	1.76	0.197	0.191	7.6	0.26	2798	4475	222	60	C	U	0.0345	111.0	0.87	2273	10.7	89.8	0.71	581	13.9	40.2	0.32	224	15.3	17.0	0.13
115	132	3115	10.0	9.4	8.4	9.2	9.4	1.53	3.5	5.4	0.39	1.95	24.4	102	1.79	0.196	0.190	7.7	0.27	2842	4475	224	61	C	U	0.0374	116.5	0.88	2279	10.9	96.1	0.73	657	14.0	47.1	0.36	275	15.4	21.5	0.16
120	137	3017	10.3	9.7	8.6	9.3	9.6	1.56	3.6	5.6	0.38	2.04	25.0	101	1.82	0.195	0.189	7.8	0.27	2882	4475	225	61	C	U	0.0403	121.7	0.89	2275	11.1	102.1	0.74	729	14.1	54.0	0.39	327	15.5	26.4	0.19
125	142	2921	10.6	10.0	8.8	9.5	9.8	1.60	3.6	5.7	0.38	2.12	25.6	100	1.85	0.195	0.189	7.9	0.28	2917	4475	226	62	C	U	0.0433	126.6	0.89	2261	11.3	107.8	0.76	795	14.2	60.9	0.43	380	15.6	31.7	0.22
130	147	2829	10.8	10.3	8.9	9.7	10.0	1.63	3.7	5.8	0.38	2.21	26.1	99	1.88	0.195	0.189	7.9	0.29	2948	4475	227	62	C	U	0.0464	131.3	0.89	2240	11.5	113.2	0.77	856	14.4	67.8	0.46	433	15.7	37.2	0.25
135	152	2739	11.1	10.5	9.1	9.8	10.1	1.66	3.7	5.9	0.38	2.30	26.6	98	1.91	0.195	0.189	8.0	0.29	2976	4475	227	63	C	U	0.0495	135.7	0.89	2213	11.7	118.2	0.78	911	14.5	74.4	0.49	485	15.9	42.9	0.28
140	157	2652	11.4	10.8	9.2	10.0	10.3	1.69	3.8	6.1	0.38	2.38	27.1	97	1.94	0.195	0.189	8.0	0.29	2999	4475	227	63	C	U	0.0527	139.8	0.89	2181	11.9	123.0	0.78	960	14.6	80.9	0.51	535	16.0	48.7	0.31
145	162	2568	11.7	11.1	9.3	10.1	10.4	1.72	3.8	6.2	0.38	2.47	27.5	96	1.97	0.195	0.189	8.0	0.30	3019	4475	227	63	C	U	0.0560	143.7	0.89	2145	12.2	127.4	0.79	1002	14.8	87.1	0.54	582	16.1	54.5	0.34
150	167	2487	11.9	11.3	9.5	10.2	10.6	1.75	3.9	6.2	0.38	2.56	27.8	96	2.01	0.196	0.190	8.1	0.30	3037	4475	226	64	C	U	0.0592	147.3	0.88	2107	12.4	131.6	0.79	1039	14.9	93.1	0.56	626	16.2	60.2	0.36
155	172	2409	12.2	11.6	9.6	10.4	10.7	1.78	3.9	6.3	0.38	2.65	28.2	95	2.04	0.196	0.191	8.1	0.30	3051	4475	226	64	C	U	0.0625	150.6	0.87	2067	12.6	135.5	0.79	1070	15.1	98.7	0.57	667	16.3	65.9	0.38
160	177	2334	12.5	11.8	9.7	10.5	10.8	1.81	4.0	6.4	0.37	2.73	28.5	94	2.07	0.197	0.191	8.1	0.30	3063	4475	225	64	C	U	0.0659	153.8	0.87	2025	12.8	139.1	0.78	1096	15.2	104.1	0.59	705	16.5	71.5	0.40
165	182	2262	12.7	12.1	9.8	10.6	10.9	1.84	4.0	6.5	0.37	2.82	28.8	93	2.10	0.198	0.192	8.1	0.31	3073	4475	224	64	C	U	0.0693	156.7	0.86	1983	13.0	142.5	0.78	1118	15.4	109.1	0.60	739	16.6	76.9	0.42
170	187	2192	13.0	12.3	9.9	10.7	11.1	1.87	4.1	6.6	0.37	2.91	29.0	92	2.14	0.199	0.193	8.1	0.31	3081	4475	223	64	C	U	0.0727	159.3	0.85	1939	13.2	145.6	0.78	1134	15.5	113.8	0.61	769	16.7	82.1	0.44
175	192	2125	13.2	12.6	10.1	10.8	11.2	1.89	4.1	6.6	0.38	3.00	29.2	91	2.17	0.200	0.194	8.0	0.31	3087	4475	222	64	C	U	0.0761	161.8	0.84	1896	13.4	148.5	0.77	1146	15.7	118.2	0.61	796	16.8	87.2	0.45
180	197	2061	13.5	12.8	10.2	10.9	11.3	1.92	4.1	6.7	0.38	3.09	29.5	90	2.20	0.201	0.195	8.0	0.31	3092	4475	221	64	C	U	0.0796	164.1	0.83	1853	13.6	151.2	0.77	1155	15.8	122.4	0.62	820	17.0	92.0	0.47
SI = 6 m Initial Density = 6000 stems/ha																																								
5	22	5990	0.7	0.6	1.6	1.8	1.8	0.67	1.2	0.3	0.82	0.35	0.2	289	1.29	0.722	0.707	0.3	0.00	693	5304	30	21	A	U	0.0000	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	27	5966	1.4	1.3	2.1	2.3	2.4	0.70	1.5	0.4	0.76	0.38	0.9	175	1.29	0.562	0.548	0.8	0.01	820	5304	47	23	A	U	0.0002	1.0	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	32	5926	2.0	1.9	2.5	2.8	2.9	0.74	1.7	0.7	0.71	0.43	1.9	146	1.30	0.462	0.450	1.4	0.02	960	5304	65	26	A	U	0.0004	2.5	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	37	5873	2.6	2.4	3.0	3.3	3.4	0.78	1.9	0.9	0.66	0.48	3.1	134	1.30	0.395	0.384	1.9	0.03	1108	5304	82	28	A	U	0.0008	4.8	0.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	42	5806	3.1	2.9	3.4	3.8	3.9	0.82	2.1	1.2	0.62	0.54	4.5	127	1.31	0.348	0.338	2.5	0.05	1262	5304	100	31	B	U	0.0014	8.1	0.19	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	47	5726	3.6	3.4	3.8	4.2	4.4	0.87	2.2	1.5	0.59	0.60	5.9	123	1.32	0.313	0.304	3.1	0.06	1417	5304	116	35	B	U	0.0021	12.2	0.26	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	52	5635	4.1	3.8	4.2	4.7	4.8	0.91	2.4	1.8	0.55	0.67	7.4	121	1.33	0.286	0.278	3.7	0.08	1571	5304	131	38	B	U	0.0030	17.0	0.33	15	8.5	0.2	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	57	5533	4.5	4.3	4.5	5.1	5.2	0.95	2.5	2.1	0.53	0.74	9.0	119	1.34	0.266	0.258	4.2	0.10	1722	5304	146	41	B	U	0.0041	22.6	0.39	80	8.5	1.0	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	62	5423	5.0	4.7	4.9	5.4	5.6	1.00	2.6	2.4	0.50	0.80	10.5	117	1.36	0.249	0.242	4.7	0.12	1868	5304	159	44	B	U	0.0053	28.7	0.46	230	8.5	3.0	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00
50	67	5304	5.4	5.0	5.2	5.8	6.0	1.04	2.6	2.7	0.48	0.87	12.0	116	1.37	0.236	0.229	5.2	0.13	2007	5304	172	46	B	U	0.0067	35.3	0.52	459	8.6	6.6	0.10	0	0.0	0.0	0.00	0	0.0	0.0	0.00
55	72	5179	5.8	5.4	5.5	6.2	6.4	1.08	2.7	3.0	0.47	0.95	13.5	115	1.39	0.226	0.219	5.6	0.15	2140	5304	183	49	B	U	0.0082	42.3	0.59	739	8.7	11.5	0.16	3	12.4	0.1	0.00	0	0.0	0.0	0.00
60	77	5048	6.1	5.8	5.8	6.5	6.7	1.12	2.8	3.3	0.45	1.02	15.0	114	1.41	0.217	0.210	6.0	0.17	2265	5304	193	51	C	U	0.0098	49.5	0.64	1036	8.8	17.7	0.23	8	12.7	0.4	0.01	0	0.0	0.0	0.00
65	82	4914	6.5	6.1	6.1	6.8	7.0	1.15	2.9	3.5	0.44	1.09	16.3	113	1.43	0.210	0.203	6.4	0.18	2382	5304	202	54	C	U	0.0116	56.9	0.69	1324	8.9	24.7	0.30	19	12.8	0.9	0.01	2	14.0	0.1	0.00
70	87	4777	6.9	6.5	6.4	7.1	7.3	1.19	2.9	3.8	0.43	1.17	17.7	112	1.45	0.204	0.198	6.7	0.20	2490	5304	210	56	C	U	0.0135	64.3	0.74	1587	9.1	32.2	0.37	40	12.9	2.0	0.02	4	14.4	0.2	0.00
75	92	4638	7.2	6.8	6.7	7.4	7.6	1.23	3.0	4.0	0.42	1.24	18.9	111	1.47	0.200	0.193	7.0	0.21	2590	5304	218	58	C	U	0.0155	71.8	0.78	1817	9.2	40.2	0.44	73	13.0	3.8	0.04	9	14.6	0.5	0.01
80	97	4499	7.5	7.1	6.9	7.6	7.9	1.26	3.0	4.2	0.41	1.32	20.1	110	1.49	0.196	0.189	7.3	0.23	2681	5304	224	59	C	U	0.0176	79.1	0.81	2010	9.4	48.3	0.50	118	13.1	6.4	0.07	17	14.7	1.0	0.01
85	102	4360	7.9	7.4	7.1	7.9	8.1	1.30	3.1	4.4	0.40	1.40	21.2	109	1.51	0.192	0.186	7.6	0.24	2764	5304	229	61	C	U	0.0198	86.4	0.84	2168	9.6	56.5	0.55	175	13.2	9.9	0.10	32	14.8	2.0	0.02
90	107	4222	8.2	7.7	7.4	8.1	8.4	1.33	3.2	4.6	0.40	1.47	22.2	108	1.54	0.190	0.183	7.8	0.25	2840	5304	234	62	C	U	0.0221	93.4	0.87	2291	9.7	64.6	0.60	243	13.3	14.2	0.13	52	14.9	3.4	0.03
95	112	4085	8.5	8.0	7.6	8.3	8.6	1.37	3.2	4.8	0.39	1.55	23.2	107	1.56	0.188	0.181	8.0	0.26	2908	5304	238	63	C	U	0.0246	100.3	0.89	2385	9.9	72.5	0.65	319	13.4	19.4	0.17	80	14.9	5.4	0.05
100	117	3951	8.8	8.3	7.8	8.5	8.8	1.40	3.3	5.0	0.39	1.63	24.1	106	1.59	0.186	0.180	8.1	0.27	2969	5304	241	64	C	U	0.0271	106.9	0.91	2453	10.1	80.1	0.68	400	13.5	25.3	0.22	114	15.0	7.9	0.07
105	122	3820	9.1	8.6	8.0	8.8	9.1	1.44	3.3	5.2	0.38	1.71	24.9	105	1.62	0.185	0.179	8.3	0.28	3023	5304	243	65	C	U	0.0296	113.2	0.93	2498	10.3	87.5	0.72	484	13.6	31.7	0.26	155	15.1	11.2	0.09
110	127	3692	9.4	8.9	8.1	8.9	9.3	1.47	3.4	5.3	0.38	1.79	25.7	104	1.65	0.184	0.178	8.4	0.29	3071	5304	245	66	C	U	0.0323	119.2	0.94	2524	10.5	94.6	0.74	569	13.7	38.6	0.30	202	15.2	15.0	0.12
115	132	3567	9.7	9.2	8.3	9.1	9.4	1.50	3.4	5.5	0.38	1.87	26.4	104	1.67	0.183	0.177	8.5	0.29	3114	5304	247	67	C	U	0.0350	125.0	0.94	2533	10.7	101.4	0.77	652	13.9	45.7	0.35	253	15.3	19.4	0.15
120	137	3445	10.0	9.4	8.5	9.3	9.6	1.53	3.5	5.6	0.37	1.96	27.0	103	1.70	0.183	0.177	8.5	0.30	3151	5304	248	67	C	U	0.0379	130.4	0.95	2529	10.9	107.8	0.79	731	14.0	53.0	0.39	306	15.4	24.3	0.18
125	142	3328	10.3	9.7	8.7	9.5	9.8	1.57	3.5	5.7	0.37	2.04	27.6	102	1.73	0.183	0.177	8.6	0.31	3183	5304	248	68	C	U	0.0407	135.6	0.95	2514	11.1	113.9	0.80	806	14.1	60.3	0.42	362	15.5	29.6	0.21
130	147	3214	10.6	10.0	8.8	9.6	10.0	1.60	3.6	5.9	0.37	2.12	28.2	101	1.76	0.183	0.177	8.7	0.31	3210	5304	249	68	C	U	0.0437	140.4	0.95	2490	11.3	119.6	0.81	875	14.2	67.6	0.46	418	15.6	35.1	0.24
135	152	3105	10.8	10.3	9.0	9.8	10.1	1.63	3.6	6.0	0.37	2.21	28.6	100	1.79	0.183	0.177	8.7	0.31	3233	5304	249	69	C	U	0.0467	144.9	0.95	2460	11.5	125.0	0.82	938	14.4	74.8	0.49	474	15.7	41.0	0.27
140	157	2999	11.1	10.5	9.1	9.9	10.3	1.66	3.6	6.1	0.37	2.29	29.1	99	1.83	0.184	0.178	8.7	0.32	3253	5304	248	69	C	U	0.0497	149.1	0.95	2423	11.7	130.0	0.83	994	14.5	81.7	0.52	528	15.8	47.0	0.30
145	162	2898	11.4	10.8	9.2	10.1	10.4	1.69	3.7	6.2	0.37	2.38	29.5	98	1.86	0.184	0.178	8.7	0.32	3269	5304	248	69	C	U	0.0528	153.1	0.94	2382	11.9	134.7	0.83	1044	14.6	88.4	0.54	580	16.0	53.1	0.33
150	167	2800	11.6	11.0	9.4	10.2	10.6	1.72	3.7	6.3	0.37	2.46	29.8	97	1.89	0.185	0.179	8.7	0.32	3282	5304	247	69	C	U	0.0560	156.8	0.94	2338	12.1	139.1	0.83	1087	14.8	94.8	0.57	629	16.1	59.1	0.35
155	172	2706	11.9	11.3	9.5	10.3	10.7	1.75	3.8	6.4	0.37	2.55	30.2	96	1.92	0.186	0.180	8.7	0.33	3292	5304	246	69	C	U	0.0592	160.2	0.93	2291	12.3	143.1	0.83	1124	14.9	100.9	0.59	675	16.2	65.1	0.38
160	177	2616	12.2	11.5	9.6	10.5	10.8	1.78	3.8	6.5	0.37	2.64	30.5	95	1.96	0.187	0.181	8.7	0.33	3300	5304	244	69	C	U	0.0624	163.3	0.92	2242	12.5	146.9	0.83	1155	15.1	106.7	0.60	717	16.3	71.0	0.40
165	182	2530	12.4	11.8	9.7	10.6	10.9	1.80	3.9	6.5	0.37	2.72	30.7	94	1.99	0.188	0.182	8.7	0.33	3305	5304	243	69	C	U	0.0657	166.2	0.91	2193	12.8	150.4	0.83	1180	15.2	112.1	0.61	756	16.4	76.8	0.42
170	187	2448	12.7	12.0	9.8	10.7	11.1	1.83	3.9	6.6	0.37	2.81	31.0	93	2.02	0.189	0.183	8.7	0.33	3309	5304	242	69	C	U	0.0690	169.0	0.90	2143	13.0	153.6	0.82	1201	15.3	117.3	0.63	791	16.6	82.4	0.44
175	192	2369	12.9	12.3	9.9	10.8	11.2	1.86	4.0	6.7	0.37	2.90	31.2	92	2.05	0.190	0.184	8.7	0.33	3310	5304	240	69	C	U	0.0724	171.4	0.89	2093	13.2	156.6	0.81	1217	15.5	122.1	0.63	822	16.7	87.8	0.46
180	197	2293	13.2	12.5	10.0	10.9	11.3	1.89	4.0	6.7	0.37	2.99	31.3	91	2.09	0.191	0.185	8.6	0.33	3311	5304	239	68	C	U	0.0758	173.7	0.88	2043	13.4	159.3	0.81	1228	15.6	126.5	0.64	849	16.8	92.9	0.47

Table A5. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 6 m Initial Density = 7000 stems/ha																																								
5	22	6988	0.7	0.6	1.6	1.8	1.8	0.66	1.2	0.3	0.81	0.35	0.2	304	1.20	0.669	0.654	0.3	0.00	803	6122	35	24	A	U	0.0000	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	27	6957	1.4	1.3	2.0	2.3	2.4	0.70	1.4	0.5	0.75	0.38	1.0	181	1.20	0.521	0.508	0.9	0.01	944	6122	53	27	A	U	0.0001	1.0	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	32	6907	2.0	1.8	2.5	2.8	2.9	0.73	1.7	0.7	0.70	0.42	2.1	150	1.20	0.429	0.417	1.5	0.02	1098	6122	73	29	A	U	0.0004	2.6	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	37	6839	2.5	2.3	2.9	3.3	3.4	0.77	1.8	0.9	0.65	0.47	3.4	137	1.21	0.367	0.356	2.1	0.04	1260	6122	92	32	B	U	0.0008	5.2	0.14	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	42	6754	3.0	2.8	3.3	3.8	3.9	0.82	2.0	1.2	0.61	0.53	4.9	130	1.22	0.323	0.313	2.8	0.05	1428	6122	111	36	B	U	0.0013	8.6	0.20	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	47	6654	3.5	3.3	3.7	4.2	4.4	0.86	2.2	1.5	0.57	0.59	6.4	126	1.23	0.291	0.282	3.4	0.07	1597	6122	129	39	B	U	0.0020	13.0	0.27	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	52	6538	4.0	3.7	4.1	4.6	4.8	0.90	2.3	1.8	0.54	0.65	8.1	123	1.24	0.266	0.258	4.1	0.09	1764	6122	147	42	B	U	0.0028	18.3	0.35	10	8.4	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	57	6410	4.4	4.1	4.5	5.0	5.2	0.94	2.4	2.1	0.52	0.71	9.7	121	1.25	0.247	0.239	4.6	0.11	1927	6122	162	46	B	U	0.0038	24.2	0.42	63	8.4	0.8	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	62	6271	4.8	4.5	4.8	5.4	5.6	0.98	2.5	2.4	0.49	0.78	11.4	120	1.26	0.232	0.225	5.2	0.13	2083	6122	177	49	B	U	0.0049	30.8	0.49	198	8.4	2.6	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00
50	67	6122	5.2	4.9	5.2	5.8	6.0	1.02	2.5	2.7	0.47	0.85	13.0	118	1.28	0.220	0.213	5.7	0.15	2233	6122	191	52	C	U	0.0062	37.9	0.56	423	8.5	5.9	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00
55	72	5965	5.6	5.2	5.5	6.1	6.4	1.06	2.6	3.0	0.46	0.91	14.6	117	1.29	0.211	0.204	6.2	0.16	2373	6122	203	55	C	U	0.0076	45.3	0.63	713	8.6	10.8	0.15	2	12.3	0.1	0.00	0	0.0	0.0	0.00
60	77	5803	6.0	5.6	5.8	6.5	6.7	1.10	2.7	3.3	0.44	0.98	16.2	116	1.31	0.203	0.196	6.6	0.18	2505	6122	214	57	C	U	0.0091	53.0	0.69	1032	8.7	17.0	0.22	5	12.6	0.2	0.00	0	0.0	0.0	0.00
65	82	5636	6.3	5.9	6.1	6.8	7.0	1.13	2.8	3.5	0.43	1.05	17.7	115	1.33	0.197	0.190	7.0	0.20	2628	6122	224	59	C	U	0.0108	60.9	0.74	1351	8.8	24.2	0.29	14	12.7	0.7	0.01	0	0.0	0.0	0.00
70	87	5467	6.7	6.3	6.3	7.1	7.3	1.17	2.8	3.8	0.42	1.13	19.1	114	1.35	0.191	0.185	7.4	0.22	2740	6122	232	62	C	U	0.0126	68.8	0.79	1648	9.0	32.2	0.37	30	12.9	1.5	0.02	2	14.4	0.1	0.00
75	92	5296	7.0	6.6	6.6	7.3	7.6	1.21	2.9	4.0	0.41	1.20	20.4	113	1.37	0.187	0.181	7.7	0.23	2843	6122	240	63	C	U	0.0145	76.7	0.83	1911	9.1	40.6	0.44	58	12.9	3.0	0.03	6	14.5	0.3	0.00
80	97	5125	7.3	6.9	6.8	7.6	7.9	1.24	2.9	4.2	0.40	1.27	21.7	112	1.40	0.184	0.177	8.0	0.24	2937	6122	246	65	C	U	0.0165	84.5	0.87	2135	9.3	49.2	0.51	99	13.0	5.3	0.05	12	14.7	0.7	0.01
85	102	4955	7.7	7.2	7.1	7.9	8.1	1.28	3.0	4.4	0.39	1.35	22.8	111	1.42	0.181	0.174	8.2	0.26	3022	6122	252	67	C	U	0.0186	92.2	0.90	2320	9.4	57.9	0.57	152	13.1	8.5	0.08	24	14.7	1.5	0.01
90	107	4787	8.0	7.5	7.3	8.1	8.4	1.31	3.0	4.6	0.39	1.42	23.9	110	1.45	0.179	0.172	8.5	0.27	3098	6122	256	68	C	U	0.0208	99.6	0.93	2466	9.6	66.6	0.62	217	13.2	12.6	0.12	41	14.8	2.6	0.02
95	112	4622	8.3	7.8	7.5	8.3	8.6	1.35	3.1	4.8	0.38	1.50	24.9	109	1.47	0.177	0.171	8.7	0.28	3165	6122	260	69	C	U	0.0231	106.8	0.95	2579	9.8	75.0	0.67	293	13.3	17.6	0.16	66	14.9	4.4	0.04
100	117	4460	8.6	8.1	7.7	8.5	8.8	1.38	3.1	5.0	0.38	1.58	25.9	108	1.50	0.176	0.169	8.8	0.29	3225	6122	263	70	D	U	0.0255	113.7	0.97	2661	10.0	83.2	0.71	376	13.4	23.4	0.20	97	15.0	6.7	0.06
105	122	4302	8.9	8.4	7.9	8.7	9.1	1.41	3.2	5.2	0.37	1.65	26.7	107	1.52	0.175	0.168	9.0	0.30	3278	6122	265	71	D	U	0.0280	120.3	0.98	2716	10.2	91.1	0.74	463	13.5	29.8	0.24	136	15.1	9.7	0.08
110	127	4148	9.2	8.7	8.1	8.9	9.3	1.44	3.2	5.3	0.37	1.73	27.5	106	1.55	0.174	0.168	9.1	0.31	3323	6122	267	72	D	U	0.0305	126.6	0.99	2749	10.3	98.7	0.78	552	13.6	36.8	0.29	181	15.1	13.3	0.10
115	132	3999	9.5	9.0	8.2	9.1	9.4	1.48	3.3	5.5	0.37	1.81	28.2	105	1.58	0.174	0.167	9.2	0.32	3363	6122	268	72	D	U	0.0332	132.6	1.00	2763	10.5	105.9	0.80	641	13.8	44.2	0.33	231	15.2	17.5	0.13
120	137	3855	9.8	9.2	8.4	9.3	9.6	1.51	3.3	5.6	0.36	1.89	28.9	104	1.61	0.174	0.167	9.2	0.32	3397	6122	269	73	D	U	0.0358	138.2	1.01	2761	10.7	112.7	0.82	727	13.9	51.7	0.38	286	15.3	22.3	0.16
125	142	3716	10.0	9.5	8.6	9.4	9.8	1.54	3.4	5.8	0.36	1.97	29.4	103	1.64	0.174	0.167	9.3	0.33	3425	6122	269	73	D	U	0.0386	143.5	1.01	2746	10.9	119.1	0.84	809	14.0	59.4	0.42	343	15.4	27.5	0.19
130	147	3582	10.3	9.8	8.7	9.6	10.0	1.57	3.5	5.9	0.36	2.05	30.0	102	1.67	0.174	0.168	9.3	0.33	3449	6122	269	74	D	U	0.0415	148.5	1.01	2720	11.1	125.1	0.85	885	14.1	67.1	0.46	401	15.5	33.2	0.23
135	152	3453	10.6	10.0	8.9	9.8	10.1	1.60	3.5	6.0	0.36	2.13	30.5	101	1.70	0.174	0.168	9.4	0.34	3469	6122	268	74	D	U	0.0444	153.2	1.01	2686	11.3	130.8	0.86	955	14.2	74.6	0.49	460	15.6	39.1	0.26
140	157	3329	10.9	10.3	9.0	9.9	10.3	1.63	3.5	6.1	0.36	2.22	30.9	100	1.73	0.175	0.169	9.4	0.34	3484	6122	268	74	D	U	0.0473	157.5	1.00	2646	11.5	136.1	0.87	1018	14.4	82.0	0.52	518	15.7	45.3	0.29
145	162	3210	11.1	10.5	9.1	10.0	10.4	1.66	3.6	6.2	0.36	2.30	31.3	99	1.77	0.176	0.169	9.4	0.34	3496	6122	266	74	D	U	0.0503	161.5	1.00	2600	11.7	141.0	0.87	1074	14.5	89.1	0.55	573	15.9	51.5	0.32
150	167	3097	11.4	10.8	9.3	10.2	10.6	1.69	3.6	6.3	0.36	2.38	31.6	98	1.80	0.177	0.170	9.4	0.35	3505	6122	265	74	D	U	0.0534	165.3	0.99	2551	11.9	145.6	0.87	1124	14.6	96.0	0.57	627	16.0	57.8	0.35
155	172	2988	11.7	11.1	9.4	10.3	10.7	1.72	3.7	6.4	0.36	2.47	32.0	97	1.83	0.177	0.171	9.4	0.35	3511	6122	264	74	D	U	0.0565	168.7	0.98	2498	12.1	149.8	0.87	1166	14.8	102.5	0.59	677	16.1	64.1	0.37
160	177	2884	11.9	11.3	9.5	10.4	10.8	1.75	3.7	6.5	0.36	2.55	32.2	96	1.86	0.178	0.172	9.3	0.35	3515	6122	262	74	D	U	0.0596	171.9	0.97	2444	12.3	153.7	0.87	1202	14.9	108.6	0.61	724	16.2	70.3	0.40
165	182	2784	12.2	11.6	9.6	10.6	10.9	1.78	3.8	6.6	0.36	2.64	32.5	95	1.90	0.180	0.173	9.3	0.35	3516	6122	260	73	D	U	0.0628	174.8	0.96	2388	12.6	157.3	0.86	1232	15.1	114.4	0.63	766	16.3	76.3	0.42
170	187	2689	12.4	11.8	9.7	10.7	11.1	1.81	3.8	6.6	0.36	2.72	32.7	94	1.93	0.181	0.174	9.3	0.35	3516	6122	259	73	D	U	0.0660	177.5	0.95	2331	12.8	160.6	0.86	1257	15.2	120.0	0.64	805	16.4	82.2	0.44
175	192	2598	12.7	12.0	9.8	10.8	11.2	1.83	3.9	6.7	0.36	2.81	32.9	93	1.96	0.182	0.176	9.2	0.35	3513	6122	257	73	D	U	0.0692	179.9	0.94	2275	13.0	163.7	0.85	1276	15.4	125.1	0.65	840	16.6	87.9	0.46
180	197	2511	12.9	12.3	9.9	10.9	11.3	1.86	3.9	6.7	0.36	2.90	33.0	92	2.00	0.183	0.177	9.2	0.35	3509	6122	255	73	D	U	0.0726	182.2	0.92	2218	13.2	166.4	0.84	1290	15.5	129.8	0.66	872	16.7	93.4	0.47
SI = 6 m Initial Density = 7500 stems/ha																																								
5	22	7486	0.6	0.6	1.6	1.8	1.8	0.66	1.2	0.3	0.81	0.35	0.2	311	1.16	0.647	0.632	0.3	0.00	858	6527	37	26	A	U	0.0000	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	27	7452	1.3	1.2	2.0	2.3	2.4	0.69	1.4	0.5	0.75	0.38	1.0	183	1.16	0.503	0.491	0.9	0.01	1005	6527	56	28	A	U	0.0001	1.0	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	32	7397	1.9	1.8	2.5	2.8	2.9	0.73	1.6	0.7	0.69	0.42	2.2	152	1.16	0.414	0.403	1.6	0.02	1166	6527	77	31	B	U	0.0004	2.7	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	37	7322	2.5	2.3	2.9	3.3	3.4	0.77	1.8	1.0	0.65	0.47	3.5	138	1.17	0.355	0.344	2.2	0.04	1335	6527	97	34	B	U	0.0007	5.3	0.14	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	42	7227	3.0	2.8	3.3	3.8	3.9	0.81	2.0	1.2	0.60	0.52	5.0	131	1.18	0.312	0.303	2.9	0.05	1510	6527	117	38	B	U	0.0012	8.9	0.21	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	47	7116	3.5	3.2	3.7	4.2	4.4	0.85	2.1	1.5	0.57	0.58	6.7	127	1.19	0.281	0.272	3.6	0.07	1685	6527	136	41	B	U	0.0019	13.4	0.28	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	52	6988	3.9	3.7	4.1	4.6	4.8	0.89	2.2	1.8	0.54	0.64	8.4	124	1.20	0.258	0.249	4.2	0.09	1858	6527	154	45	B	U	0.0027	18.8	0.36	8	8.4	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	57	6846	4.3	4.1	4.5	5.0	5.2	0.93	2.3	2.2	0.51	0.70	10.1	122	1.21	0.240	0.232	4.9	0.11	2026	6527	171	48	B	U	0.0037	25.0	0.44	56	8.4	0.7	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	62	6692	4.7	4.4	4.8	5.4	5.6	0.97	2.4	2.4	0.49	0.77	11.8	121	1.22	0.225	0.217	5.4	0.13	2188	6527	186	51	C	U	0.0048	31.8	0.51	184	8.4	2.4	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00
50	67	6527	5.1	4.8	5.2	5.8	6.0	1.01	2.5	2.7	0.47	0.83	13.5	119	1.24	0.214	0.206	6.0	0.15	2342	6527	200	54	C	U	0.0060	39.1	0.58	405	8.5	5.6	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00
55	72	6355	5.5	5.2	5.5	6.1	6.4	1.05	2.6	3.0	0.45	0.90	15.2	118	1.25	0.204	0.197	6.5	0.17	2486	6527	212	57	C	U	0.0074	46.8	0.65	698	8.5	10.4	0.14	0	0.0	0.0	0.00	0	0.0	0.0	0.00
60	77	6176	5.9	5.5	5.8	6.5	6.7	1.09	2.6	3.3	0.44	0.97	16.8	117	1.27	0.197	0.190	6.9	0.19	2621	6527	224	60	C	U	0.0089	54.7	0.71	1026	8.6	16.6	0.21	4	12.6	0.2	0.00	0	0.0	0.0	0.00
65	82	5993	6.2	5.9	6.0	6.8	7.0	1.13	2.7	3.5	0.42	1.04	18.3	116	1.29	0.191	0.184	7.3	0.21	2746	6527	234	62	C	U	0.0105	62.8	0.76	1358	8.8	24.0	0.29	12	12.7	0.6	0.01	0	0.0	0.0	0.00
70	87	5807	6.6	6.2	6.3	7.1	7.3	1.16	2.8	3.8	0.41	1.11	19.8	115	1.31	0.186	0.179	7.7	0.22	2861	6527	243	64	C	U	0.0122	70.9	0.81	1671	8.9	32.1	0.37	27	12.8	1.3	0.01	2	14.2	0.1	0.00
75	92	5619	6.9	6.5	6.6	7.3	7.6	1.20	2.8	4.0	0.40	1.18	21.1	114	1.33	0.182	0.175	8.0	0.24	2965	6527	250	66	C	U	0.0141	79.0	0.86	1950	9.1	40.7	0.44	52	12.9	2.7	0.03	5	14.5	0.3	0.00
80	97	5432	7.2	6.8	6.8	7.6	7.9	1.23	2.9	4.2	0.40	1.25	22.4	113	1.36	0.179	0.172	8.3	0.25	3060	6527	257	68	C	U	0.0160	87.0	0.89	2189	9.2	49.6	0.51	90	13.0	4.8	0.05	11	14.6	0.6	0.01
85	102	5247	7.6	7.1	7.0	7.8	8.1	1.27	2.9	4.5	0.39	1.33	23.6	112	1.38	0.176	0.170	8.6	0.27	3145	6527	262	70	C	U	0.0181	94.9	0.93	2387	9.4	58.5	0.57	142	13.1	7.9	0.08	21	14.7	1.3	0.01
90	107	5064	7.9	7.4	7.2	8.1	8.4	1.30	3.0	4.7	0.38	1.40	24.7	111	1.41	0.174	0.168	8.8	0.28	3220	6527	267	71	D	U	0.0202	102.5	0.96	2546	9.5	67.4	0.63	206	13.2	11.9	0.11	37	14.8	2.4	0.02
95	112	4884	8.2	7.7	7.5	8.3	8.6	1.34	3.0	4.8	0.38	1.47	25.7	110	1.43	0.172	0.166	9.0	0.29	3288	6527	270	72	D	U	0.0225	109.8	0.98	2667	9.7	76.1	0.68	280	13.3	16.7	0.15	60	14.9	4.0	0.04
100	117	4708	8.5	8.0	7.7	8.5	8.8	1.37	3.1	5.0	0.37	1.55	26.7	109	1.46	0.171	0.165	9.2	0.30	3347	6527	273	73	D	U	0.0248	116.9	1.00	2756	9.9	84.5	0.72	363	13.4	22.5	0.19	90	14.9	6.2	0.05
105	122	4537	8.8	8.3	7.8	8.7	9.1	1.40	3.1	5.2	0.37	1.63	27.5	108	1.48	0.170	0.164	9.3	0.31	3398	6527	276	74	D	U	0.0272	123.6	1.01	2817	10.1	92.7	0.76	452	13.5	28.9	0.24	127	15.0	9.0	0.07
110	127	4370	9.1	8.6	8.0	8.9	9.3	1.43	3.2	5.3	0.37	1.70	28.3	107	1.51	0.170	0.163	9.4	0.32	3443	6527	277	74	D	U	0.0297	130.0	1.02	2854	10.3	100.4	0.79	543	13.6	35.9	0.28	172	15.1	12.5	0.10
115	132	4209	9.4	8.9	8.2	9.1	9.4	1.47	3.2	5.5	0.36	1.78	29.1	106	1.54	0.170	0.163	9.5	0.33	3481	6527	278	75	D	U	0.0323	136.1	1.03	2870	10.5	107.8	0.81	634	13.7	43.4	0.33	221	15.2	16.6	0.13
120	137	4054	9.7	9.1	8.4	9.3	9.6	1.50	3.3	5.6	0.36	1.86	29.7	105	1.57	0.169	0.163	9.6	0.33	3513	6527	279	75	D	U	0.0350	141.8	1.03	2869	10.7	114.8	0.84	723	13.8	51.0	0.37	276	15.3	21.4	0.16
125	142	3904	9.9	9.4	8.5	9.4	9.8	1.53	3.3	5.8	0.36	1.94	30.3	104	1.60	0.170	0.163	9.6	0.34	3540	6527	279	76	D	U	0.0377	147.2	1.03	2855	10.9	121.4	0.85	808	13.9	58.9	0.41	333	15.4	26.6	0.19
130	147	3760	10.2	9.7	8.7	9.6	10.0	1.56	3.4	5.9	0.36	2.02	30.8	103	1.63	0.170	0.164	9.6	0.34	3562	6527	278	76	D	U	0.0405	152.3	1.03	2829	11.1	127.6	0.87	887	14.1	66.7	0.45	393	15.5	32.2	0.22
135	152	3621	10.5	9.9	8.8	9.7	10.1	1.59	3.4	6.0	0.36	2.10	31.3	102	1.66	0.170	0.164	9.7	0.35	3580	6527	278	76	D	U	0.0433	156.9	1.03	2793	11.3	133.4	0.88	960	14.2	74.4	0.49	452	15.6	38.1	0.25
140	157	3489	10.8	10.2	9.0	9.9	10.3	1.62	3.5	6.1	0.36	2.18	31.8	101	1.69	0.171	0.165	9.7	0.35	3594	6527	277	76	D	U	0.0463	161.4	1.03	2751	11.5	138.8	0.88	1027	14.3	82.0	0.52	512	15.7	44.4	0.28
145	162	3362	11.0	10.4	9.1	10.0	10.4	1.65	3.5	6.2	0.35	2.27	32.1	100	1.72	0.172	0.166	9.7	0.35	3604	6527	276	76	D	U	0.0492	165.4	1.02	2703	11.7	143.8	0.89	1087	14.5	89.3	0.55	569	15.8	50.7	0.31
150	167	3240	11.3	10.7	9.2	10.2	10.6	1.68	3.6	6.3	0.35	2.35	32.5	99	1.76	0.173	0.166	9.7	0.36	3611	6527	274	76	D	U	0.0522	169.2	1.01	2651	11.9	148.5	0.89	1139	14.6	96.3	0.58	624	15.9	57.1	0.34
155	172	3124	11.6	11.0	9.3	10.3	10.7	1.71	3.6	6.4	0.35	2.43	32.8	98	1.79	0.174	0.167	9.6	0.36	3615	6527	272	76	D	U	0.0553	172.7	1.00	2596	12.1	152.8	0.89	1184	14.7	103.0	0.60	676	16.0	63.5	0.37
160	177	3013	11.8	11.2	9.5	10.4	10.8	1.74	3.7	6.5	0.35	2.52	33.1	97	1.82	0.175	0.168	9.6	0.36	3616	6527	271	76	D	U	0.0584	175.9	0.99	2539	12.3	156.8	0.88	1223	14.9	109.4	0.62	725	16.2	69.8	0.39
165	182	2907	12.1	11.4	9.6	10.5	10.9	1.76	3.7	6.6	0.35	2.60	33.3	96	1.85	0.176	0.170	9.6	0.36	3616	6527	269	76	D	U	0.0615	178.8	0.98	2481	12.5	160.5	0.88	1255	15.0	115.4	0.63	770	16.3	76.0	0.42
170	187	2805	12.3	11.7	9.7	10.7	11.1	1.79	3.8	6.6	0.35	2.69	33.5	95	1.89	0.177	0.171	9.5	0.36	3613	6527	267	75	D	U	0.0647	181.5	0.97	2421	12.7	163.8	0.87	1281	15.1	121.0	0.65	811	16.4	82.0	0.44
175	192	2709	12.6	11.9	9.8	10.8	11.2	1.82	3.8	6.7	0.36	2.77	33.7	94	1.92	0.179	0.172	9.5	0.36	3609	6527	264	75	D	U	0.0679	183.9	0.96	2362	12.9	166.9	0.87	1302	15.3	126.3	0.66	848	16.5	87.9	0.46
180	197	2617	12.8	12.2	9.9	10.9	11.3	1.85	3.9	6.8	0.36	2.86	33.8	93	1.95	0.180	0.173	9.4	0.36	3603	6527	262	75	D	U	0.0712	186.2	0.94	2303	13.1	169.8	0.86	1318	15.4	131.2	0.67	881	16.6	93.5	0.47

Table A6. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 6 m Initial Density = 8000 stems/ha																																								
5	22	7985	0.6	0.6	1.6	1.8	1.8	0.66	1.2	0.3	0.80	0.35	0.2	318	1.12	0.627	0.612	0.3	0.00	913	6931	39	28	A	U	0.0000	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	27	7947	1.3	1.2	2.0	2.3	2.4	0.69	1.4	0.5	0.74	0.38	1.1	186	1.12	0.488	0.475	0.9	0.01	1066	6931	59	30	B	U	0.0001	1.1	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	32	7886	1.9	1.8	2.5	2.8	2.9	0.73	1.6	0.7	0.69	0.42	2.2	154	1.13	0.402	0.390	1.6	0.02	1233	6931	81	33	B	U	0.0004	2.8	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	37	7804	2.4	2.3	2.9	3.3	3.4	0.77	1.8	1.0	0.64	0.47	3.6	140	1.13	0.344	0.334	2.3	0.04	1410	6931	102	36	B	U	0.0007	5.5	0.15	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	42	7700	2.9	2.7	3.3	3.8	3.9	0.81	2.0	1.3	0.60	0.52	5.2	133	1.14	0.303	0.293	3.0	0.06	1590	6931	123	40	B	U	0.0012	9.2	0.22	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	47	7577	3.4	3.2	3.7	4.2	4.4	0.85	2.1	1.6	0.56	0.58	6.9	128	1.15	0.273	0.264	3.7	0.08	1772	6931	143	44	B	U	0.0018	13.8	0.29	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	52	7436	3.9	3.6	4.1	4.6	4.8	0.89	2.2	1.9	0.53	0.63	8.7	125	1.16	0.250	0.242	4.4	0.10	1951	6931	161	47	B	U	0.0026	19.4	0.37	7	8.4	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	57	7280	4.3	4.0	4.5	5.0	5.2	0.93	2.3	2.2	0.50	0.69	10.5	123	1.17	0.233	0.225	5.1	0.12	2124	6931	178	51	C	U	0.0035	25.7	0.45	49	8.4	0.6	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	62	7111	4.7	4.4	4.8	5.4	5.6	0.97	2.4	2.5	0.48	0.76	12.2	122	1.19	0.219	0.211	5.7	0.14	2291	6931	194	54	C	U	0.0046	32.7	0.52	171	8.4	2.2	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00
50	67	6931	5.1	4.8	5.1	5.8	6.0	1.01	2.5	2.7	0.46	0.82	14.0	120	1.20	0.208	0.200	6.2	0.16	2449	6931	209	57	C	U	0.0058	40.2	0.60	388	8.4	5.3	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00
55	72	6742	5.4	5.1	5.4	6.1	6.4	1.04	2.5	3.0	0.45	0.89	15.7	119	1.22	0.199	0.192	6.7	0.18	2597	6931	222	60	C	U	0.0071	48.1	0.67	682	8.5	10.0	0.14	0	0.0	0.0	0.00	0	0.0	0.0	0.00
60	77	6546	5.8	5.5	5.7	6.5	6.7	1.08	2.6	3.3	0.43	0.95	17.3	118	1.24	0.192	0.185	7.2	0.20	2734	6931	233	62	C	U	0.0086	56.3	0.73	1018	8.6	16.3	0.21	4	12.5	0.2	0.00	0	0.0	0.0	0.00
65	82	6346	6.2	5.8	6.0	6.8	7.0	1.12	2.7	3.6	0.42	1.02	18.9	117	1.26	0.186	0.179	7.6	0.21	2862	6931	244	65	C	U	0.0102	64.6	0.79	1362	8.7	23.7	0.29	10	12.7	0.5	0.01	0	0.0	0.0	0.00
70	87	6143	6.5	6.1	6.3	7.1	7.3	1.15	2.7	3.8	0.41	1.09	20.4	115	1.28	0.181	0.174	8.0	0.23	2978	6931	253	67	C	U	0.0119	72.9	0.84	1689	8.9	31.9	0.37	23	12.8	1.1	0.01	2	14.1	0.1	0.00
75	92	5940	6.8	6.4	6.5	7.3	7.6	1.19	2.8	4.0	0.40	1.16	21.8	114	1.30	0.177	0.170	8.3	0.25	3084	6931	260	69	C	U	0.0137	81.3	0.88	1984	9.0	40.7	0.44	47	12.9	2.4	0.03	4	14.5	0.2	0.00
80	97	5736	7.2	6.7	6.8	7.6	7.9	1.22	2.8	4.3	0.39	1.23	23.1	113	1.32	0.174	0.167	8.6	0.26	3179	6931	267	71	D	U	0.0156	89.4	0.92	2238	9.2	49.8	0.51	83	13.0	4.4	0.05	9	14.6	0.5	0.01
85	102	5535	7.5	7.0	7.0	7.8	8.1	1.26	2.9	4.5	0.38	1.31	24.3	112	1.34	0.172	0.165	8.9	0.28	3264	6931	273	72	D	U	0.0176	97.4	0.95	2449	9.3	59.0	0.58	132	13.1	7.3	0.07	18	14.7	1.1	0.01
90	107	5337	7.8	7.3	7.2	8.1	8.4	1.29	2.9	4.7	0.38	1.38	25.5	111	1.37	0.170	0.163	9.1	0.29	3340	6931	277	74	D	U	0.0197	105.2	0.98	2619	9.5	68.1	0.63	195	13.1	11.2	0.10	33	14.8	2.1	0.02
95	112	5142	8.1	7.6	7.4	8.3	8.6	1.33	3.0	4.9	0.37	1.45	26.5	110	1.39	0.168	0.162	9.3	0.30	3406	6931	281	75	D	U	0.0219	112.7	1.00	2750	9.7	77.1	0.69	268	13.2	15.9	0.14	55	14.8	3.6	0.03
100	117	4952	8.4	7.9	7.6	8.5	8.8	1.36	3.0	5.0	0.37	1.53	27.5	109	1.42	0.167	0.161	9.5	0.31	3465	6931	284	76	D	U	0.0242	119.9	1.02	2847	9.8	85.8	0.73	351	13.3	21.6	0.18	83	14.9	5.7	0.05
105	122	4768	8.7	8.2	7.8	8.7	9.1	1.39	3.1	5.2	0.36	1.60	28.3	108	1.45	0.166	0.160	9.6	0.32	3515	6931	286	76	D	U	0.0266	126.8	1.04	2913	10.0	94.1	0.77	440	13.5	28.0	0.23	119	15.0	8.4	0.07
110	127	4589	9.0	8.5	8.0	8.9	9.3	1.42	3.1	5.4	0.36	1.68	29.1	107	1.48	0.166	0.160	9.7	0.33	3559	6931	287	77	D	U	0.0290	133.3	1.05	2954	10.2	102.1	0.80	533	13.6	35.0	0.27	163	15.1	11.8	0.09
115	132	4416	9.3	8.8	8.2	9.1	9.4	1.45	3.2	5.5	0.36	1.76	29.9	106	1.50	0.166	0.159	9.8	0.34	3595	6931	288	78	D	U	0.0316	139.5	1.05	2973	10.4	109.7	0.83	626	13.7	42.5	0.32	212	15.2	15.8	0.12
120	137	4249	9.6	9.0	8.3	9.3	9.6	1.49	3.2	5.6	0.36	1.84	30.5	105	1.53	0.166	0.159	9.9	0.34	3626	6931	288	78	D	U	0.0342	145.3	1.06	2973	10.6	116.9	0.85	718	13.8	50.3	0.37	266	15.3	20.5	0.15
125	142	4089	9.8	9.3	8.5	9.4	9.8	1.52	3.3	5.8	0.35	1.91	31.1	104	1.56	0.166	0.160	9.9	0.35	3651	6931	288	78	D	U	0.0369	150.8	1.06	2959	10.8	123.6	0.87	805	13.9	58.2	0.41	324	15.4	25.7	0.18
130	147	3934	10.1	9.6	8.6	9.6	10.0	1.55	3.3	5.9	0.35	1.99	31.7	103	1.59	0.166	0.160	9.9	0.35	3672	6931	288	78	D	U	0.0396	155.8	1.06	2932	11.0	129.9	0.88	888	14.0	66.2	0.45	384	15.5	31.3	0.21
135	152	3787	10.4	9.8	8.8	9.7	10.1	1.58	3.4	6.0	0.35	2.07	32.1	102	1.62	0.167	0.161	10.0	0.36	3687	6931	287	79	D	U	0.0424	160.6	1.05	2897	11.2	135.9	0.89	965	14.1	74.1	0.49	445	15.6	37.3	0.24
140	157	3645	10.7	10.1	8.9	9.9	10.3	1.61	3.4	6.1	0.35	2.15	32.6	101	1.66	0.168	0.161	10.0	0.36	3699	6931	286	79	D	U	0.0453	165.0	1.05	2853	11.4	141.4	0.90	1034	14.3	81.8	0.52	505	15.7	43.5	0.28
145	162	3510	10.9	10.3	9.0	10.0	10.4	1.64	3.5	6.2	0.35	2.24	32.9	100	1.69	0.168	0.162	10.0	0.36	3707	6931	284	78	D	U	0.0482	169.2	1.04	2803	11.6	146.5	0.90	1097	14.4	89.4	0.55	564	15.8	49.9	0.31
150	167	3380	11.2	10.6	9.2	10.2	10.6	1.67	3.5	6.3	0.35	2.32	33.3	99	1.72	0.169	0.163	9.9	0.37	3712	6931	282	78	D	U	0.0512	172.9	1.03	2748	11.8	151.3	0.90	1152	14.5	96.6	0.58	621	15.9	56.3	0.34
155	172	3257	11.5	10.9	9.3	10.3	10.7	1.70	3.6	6.4	0.35	2.40	33.6	98	1.75	0.170	0.164	9.9	0.37	3714	6931	281	78	D	U	0.0542	176.4	1.02	2691	12.0	155.7	0.90	1200	14.7	103.5	0.60	675	16.0	62.8	0.36
160	177	3139	11.7	11.1	9.4	10.4	10.8	1.72	3.6	6.5	0.35	2.48	33.8	97	1.78	0.172	0.165	9.9	0.37	3714	6931	279	78	D	U	0.0572	179.6	1.01	2631	12.2	159.7	0.90	1241	14.8	110.0	0.62	726	16.1	69.3	0.39
165	182	3027	12.0	11.3	9.5	10.5	10.9	1.75	3.7	6.6	0.35	2.57	34.1	96	1.82	0.173	0.166	9.8	0.37	3711	6931	277	78	D	U	0.0603	182.6	1.00	2571	12.4	163.5	0.90	1276	14.9	116.2	0.64	772	16.2	75.6	0.41
170	187	2919	12.2	11.6	9.6	10.6	11.1	1.78	3.7	6.6	0.35	2.65	34.3	95	1.85	0.174	0.167	9.8	0.37	3707	6931	274	77	D	U	0.0635	185.3	0.99	2508	12.6	166.9	0.89	1304	15.1	122.0	0.65	815	16.3	81.8	0.44
175	192	2817	12.5	11.8	9.7	10.7	11.2	1.81	3.8	6.7	0.35	2.74	34.4	94	1.88	0.175	0.169	9.8	0.37	3701	6931	272	77	D	U	0.0666	187.7	0.98	2446	12.8	170.0	0.88	1326	15.2	127.4	0.66	854	16.5	87.8	0.46
180	197	2720	12.7	12.1	9.8	10.9	11.3	1.84	3.8	6.8	0.35	2.82	34.6	93	1.92	0.177	0.170	9.7	0.37	3693	6931	270	77	D	U	0.0699	190.0	0.96	2384	13.0	172.9	0.88	1344	15.4	132.5	0.67	889	16.6	93.5	0.47
SI = 6 m Initial Density = 9000 stems/ha																																								
5	22	8982	0.6	0.6	1.6	1.8	1.8	0.66	1.2	0.3	0.79	0.34	0.3	331	1.06	0.591	0.577	0.3	0.00	1022	7731	43	31	B	U	0.0000	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	27	8937	1.3	1.2	2.0	2.3	2.4	0.69	1.4	0.5	0.73	0.38	1.1	191	1.06	0.461	0.448	1.0	0.01	1188	7731	65	34	B	U	0.0001	1.1	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	32	8865	1.8	1.7	2.5	2.8	2.9	0.73	1.6	0.7	0.68	0.42	2.4	157	1.06	0.379	0.368	1.7	0.03	1367	7731	88	37	B	U	0.0003	2.9	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	37	8766	2.4	2.2	2.9	3.3	3.4	0.76	1.8	1.0	0.63	0.46	3.9	143	1.07	0.325	0.315	2.5	0.04	1556	7731	111	40	B	U	0.0007	5.8	0.16	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	42	8643	2.9	2.7	3.3	3.8	3.9	0.80	1.9	1.3	0.59	0.51	5.6	135	1.08	0.286	0.277	3.3	0.06	1750	7731	134	44	B	U	0.0011	9.7	0.23	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	47	8497	3.3	3.1	3.7	4.2	4.4	0.84	2.0	1.6	0.55	0.56	7.4	130	1.08	0.258	0.249	4.0	0.08	1943	7731	155	48	B	U	0.0017	14.6	0.31	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	52	8330	3.8	3.5	4.1	4.6	4.8	0.88	2.1	1.9	0.52	0.62	9.2	127	1.10	0.237	0.228	4.8	0.10	2133	7731	175	52	C	U	0.0025	20.5	0.39	5	8.3	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	57	8145	4.2	3.9	4.4	5.0	5.2	0.92	2.2	2.2	0.49	0.68	11.1	125	1.11	0.220	0.212	5.4	0.12	2316	7731	194	55	C	U	0.0033	27.1	0.47	39	8.3	0.5	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	62	7944	4.6	4.3	4.8	5.4	5.6	0.96	2.3	2.5	0.47	0.74	13.0	123	1.12	0.207	0.200	6.1	0.15	2492	7731	211	59	C	U	0.0043	34.5	0.55	147	8.3	1.8	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
50	67	7731	5.0	4.6	5.1	5.8	6.0	0.99	2.4	2.8	0.45	0.80	14.9	122	1.14	0.197	0.190	6.7	0.17	2657	7731	226	62	C	U	0.0055	42.4	0.63	354	8.4	4.7	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00
55	72	7509	5.3	5.0	5.4	6.1	6.4	1.03	2.5	3.0	0.44	0.87	16.7	120	1.15	0.189	0.181	7.2	0.19	2812	7731	240	65	C	U	0.0068	50.7	0.70	648	8.5	9.3	0.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00
60	77	7279	5.7	5.3	5.7	6.4	6.7	1.07	2.5	3.3	0.42	0.93	18.4	119	1.17	0.182	0.175	7.7	0.21	2955	7731	252	68	C	U	0.0081	59.3	0.77	997	8.6	15.6	0.20	3	12.4	0.1	0.00	0	0.0	0.0	0.00
65	82	7045	6.0	5.7	6.0	6.7	7.0	1.10	2.6	3.6	0.41	1.00	20.1	118	1.19	0.177	0.170	8.2	0.23	3086	7731	263	70	D	U	0.0097	68.0	0.83	1363	8.7	23.1	0.28	7	12.7	0.3	0.00	0	0.0	0.0	0.00
70	87	6808	6.4	6.0	6.2	7.0	7.3	1.14	2.6	3.8	0.40	1.06	21.6	117	1.21	0.172	0.165	8.6	0.25	3205	7731	272	72	D	U	0.0113	76.7	0.88	1717	8.8	31.6	0.36	18	12.8	0.9	0.01	0	0.0	0.0	0.00
75	92	6571	6.7	6.3	6.5	7.3	7.6	1.17	2.7	4.0	0.39	1.13	23.1	116	1.23	0.169	0.162	8.9	0.26	3312	7731	280	74	D	U	0.0130	85.4	0.93	2041	8.9	40.7	0.44	38	12.8	1.9	0.02	3	14.3	0.2	0.00
80	97	6335	7.0	6.6	6.7	7.6	7.9	1.21	2.7	4.3	0.38	1.20	24.5	115	1.26	0.166	0.159	9.2	0.28	3409	7731	287	76	D	U	0.0148	94.0	0.97	2324	9.1	50.2	0.52	70	12.9	3.7	0.04	7	14.5	0.4	0.00
85	102	6102	7.3	6.9	6.9	7.8	8.1	1.24	2.8	4.5	0.38	1.27	25.7	114	1.28	0.164	0.157	9.5	0.29	3494	7731	293	78	D	U	0.0168	102.3	1.00	2561	9.2	59.8	0.58	115	13.0	6.3	0.06	14	14.6	0.9	0.01
90	107	5873	7.6	7.2	7.2	8.1	8.4	1.28	2.9	4.7	0.37	1.34	26.9	113	1.30	0.162	0.156	9.7	0.31	3569	7731	297	79	D	U	0.0188	110.4	1.03	2753	9.4	69.4	0.65	174	13.1	9.9	0.09	27	14.7	1.7	0.02
95	112	5650	7.9	7.5	7.4	8.3	8.6	1.31	2.9	4.9	0.37	1.41	28.0	111	1.33	0.161	0.154	9.9	0.32	3635	7731	301	80	D	U	0.0209	118.2	1.05	2903	9.6	78.8	0.70	246	13.2	14.5	0.13	45	14.8	2.9	0.03
100	117	5432	8.2	7.8	7.6	8.5	8.8	1.34	3.0	5.0	0.36	1.49	29.0	110	1.36	0.160	0.153	10.1	0.33	3691	7731	303	81	D	U	0.0231	125.6	1.07	3015	9.7	87.9	0.75	328	13.3	20.0	0.17	72	14.9	4.9	0.04
105	122	5221	8.5	8.1	7.7	8.7	9.1	1.37	3.0	5.2	0.36	1.56	29.9	109	1.38	0.159	0.153	10.2	0.34	3740	7731	305	81	D	U	0.0254	132.7	1.09	3093	9.9	96.7	0.79	418	13.4	26.3	0.22	105	14.9	7.3	0.06
110	127	5017	8.8	8.3	7.9	8.9	9.3	1.40	3.1	5.4	0.35	1.64	30.7	108	1.41	0.159	0.153	10.3	0.35	3780	7731	306	82	D	U	0.0278	139.5	1.10	3142	10.1	105.1	0.83	513	13.5	33.3	0.26	146	15.0	10.5	0.08
115	132	4820	9.1	8.6	8.1	9.1	9.4	1.44	3.1	5.5	0.35	1.71	31.4	107	1.44	0.159	0.153	10.4	0.36	3814	7731	307	82	D	U	0.0302	145.8	1.10	3167	10.3	113.0	0.85	609	13.6	40.9	0.31	194	15.1	14.3	0.11
120	137	4631	9.4	8.9	8.2	9.2	9.6	1.47	3.2	5.7	0.35	1.79	32.1	106	1.47	0.159	0.153	10.5	0.36	3842	7731	307	83	D	U	0.0328	151.8	1.11	3171	10.5	120.6	0.88	705	13.7	48.8	0.36	247	15.2	18.8	0.14
125	142	4449	9.7	9.1	8.4	9.4	9.8	1.50	3.2	5.8	0.35	1.86	32.7	105	1.50	0.159	0.153	10.5	0.37	3863	7731	306	83	D	U	0.0354	157.4	1.11	3158	10.7	127.6	0.90	798	13.8	56.9	0.40	305	15.3	23.9	0.17
130	147	4275	9.9	9.4	8.6	9.6	10.0	1.53	3.3	5.9	0.35	1.94	33.2	104	1.53	0.160	0.153	10.5	0.37	3880	7731	305	83	D	U	0.0380	162.6	1.10	3131	10.9	134.2	0.91	887	13.9	65.2	0.44	366	15.4	29.5	0.20
135	152	4109	10.2	9.7	8.7	9.7	10.1	1.56	3.3	6.0	0.35	2.02	33.7	103	1.56	0.161	0.154	10.5	0.38	3892	7731	304	83	D	U	0.0408	167.5	1.10	3093	11.1	140.4	0.92	969	14.1	73.4	0.48	429	15.5	35.5	0.23
140	157	3950	10.5	9.9	8.8	9.9	10.3	1.59	3.3	6.1	0.35	2.10	34.1	102	1.59	0.161	0.155	10.5	0.38	3900	7731	303	83	D	U	0.0435	172.0	1.09	3047	11.2	146.2	0.93	1045	14.2	81.5	0.52	491	15.6	41.7	0.27
145	162	3798	10.8	10.2	9.0	10.0	10.4	1.62	3.4	6.2	0.34	2.18	34.5	101	1.62	0.162	0.156	10.5	0.38	3905	7731	301	83	D	U	0.0464	176.1	1.09	2993	11.4	151.5	0.93	1113	14.3	89.3	0.55	553	15.7	48.2	0.30
150	167	3654	11.0	10.4	9.1	10.1	10.6	1.65	3.4	6.3	0.34	2.26	34.8	100	1.65	0.163	0.157	10.5	0.38	3906	7731	299	83	D	U	0.0493	180.0	1.08	2936	11.6	156.5	0.94	1174	14.4	96.9	0.58	613	15.8	54.9	0.33
155	172	3516	11.3	10.7	9.2	10.3	10.7	1.68	3.5	6.4	0.34	2.34	35.1	99	1.69	0.164	0.158	10.5	0.39	3904	7731	297	82	D	U	0.0522	183.5	1.07	2873	11.8	161.0	0.93	1227	14.6	104.1	0.60	670	15.9	61.5	0.36
160	177	3385	11.5	10.9	9.3	10.4	10.8	1.70	3.5	6.5	0.34	2.42	35.3	98	1.72	0.166	0.159	10.4	0.39	3900	7731	294	82	D	U	0.0552	186.8	1.05	2809	12.0	165.2	0.93	1273	14.7	111.0	0.63	724	16.0	68.1	0.38
165	182	3260	11.8	11.2	9.4	10.5	10.9	1.73	3.6	6.6	0.35	2.51	35.6	97	1.75	0.167	0.160	10.4	0.39	3894	7731	292	82	D	U	0.0582	189.8	1.04	2743	12.2	169.1	0.93	1312	14.8	117.5	0.64	775	16.1	74.7	0.41
170	187	3141	12.0	11.4	9.5	10.6	11.1	1.76	3.6	6.7	0.35	2.59	35.7	96	1.78	0.168	0.161	10.3	0.39	3886	7731	289	81	D	U	0.0613	192.4	1.03	2676	12.4	172.6	0.92	1344	15.0	123.7	0.66	821	16.3	81.1	0.43
175	192	3027	12.3	11.6	9.6	10.7	11.2	1.79	3.7	6.7	0.35	2.67	35.9	95	1.82	0.170	0.163	10.2	0.39	3876	7731	286	81	D	U	0.0644	194.8	1.01	2607	12.6	175.8	0.91	1370	15.1	129.4	0.67	863	16.4	87.3	0.45
180	197	2920	12.5	11.9	9.7	10.8	11.3	1.82	3.7	6.8	0.35	2.76	36.0	94	1.85	0.171	0.164	10.2	0.39	3865	7731	284	81	D	U	0.0675	197.1	1.00	2541	12.8	178.7	0.91	1391	15.3	134.8	0.68	901	16.5	93.4	0.47

Table A7. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Utilization standard (Util. std.) = 0/0 (total volume)

Bh age	Total age	N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA
SI = 6 m Initial Density = 10000 stems/ha												
5	22	9979	0.6	0.5	1.6	1.8	1.8	0.66	1.2	0.3	0.79	0.34
10	27	9927	1.2	1.1	2.0	2.3	2.4	0.69	1.4	0.5	0.73	0.37
15	32	9843	1.8	1.7	2.4	2.8	2.9	0.72	1.6	0.7	0.67	0.41
20	37	9728	2.3	2.2	2.9	3.3	3.4	0.76	1.7	1.0	0.62	0.46
25	42	9584	2.8	2.6	3.3	3.8	3.9	0.80	1.9	1.3	0.58	0.50
30	47	9413	3.2	3.0	3.7	4.2	4.4	0.83	2.0	1.6	0.54	0.55
35	52	9219	3.7	3.4	4.0	4.6	4.8	0.87	2.1	1.9	0.51	0.61
40	57	9004	4.1	3.8	4.4	5.0	5.2	0.91	2.2	2.2	0.49	0.67
45	62	8772	4.5	4.2	4.7	5.4	5.6	0.95	2.3	2.5	0.46	0.72
50	67	8525	4.8	4.5	5.0	5.8	6.0	0.98	2.3	2.8	0.44	0.78
55	72	8268	5.2	4.9	5.3	6.1	6.4	1.02	2.4	3.1	0.43	0.85
60	77	8004	5.6	5.2	5.6	6.4	6.7	1.06	2.5	3.3	0.41	0.91
65	82	7734	5.9	5.5	5.9	6.7	7.0	1.09	2.5	3.6	0.40	0.97
70	87	7463	6.2	5.9	6.2	7.0	7.3	1.13	2.6	3.8	0.39	1.04
75	92	7192	6.6	6.2	6.4	7.3	7.6	1.16	2.6	4.1	0.38	1.10
80	97	6923	6.9	6.5	6.7	7.6	7.9	1.19	2.7	4.3	0.38	1.17
85	102	6658	7.2	6.8	6.9	7.8	8.1	1.23	2.7	4.5	0.37	1.24
90	107	6399	7.5	7.1	7.1	8.0	8.4	1.26	2.8	4.7	0.36	1.31
95	112	6146	7.8	7.4	7.3	8.3	8.6	1.29	2.8	4.9	0.36	1.38
100	117	5900	8.1	7.6	7.5	8.5	8.8	1.33	2.9	5.1	0.35	1.45
105	122	5663	8.4	7.9	7.7	8.7	9.1	1.36	2.9	5.2	0.35	1.52
110	127	5434	8.7	8.2	7.9	8.9	9.3	1.39	3.0	5.4	0.35	1.60
115	132	5213	9.0	8.5	8.0	9.0	9.4	1.42	3.0	5.5	0.35	1.67
120	137	5002	9.2	8.7	8.2	9.2	9.6	1.45	3.1	5.7	0.34	1.75
125	142	4800	9.5	9.0	8.3	9.4	9.8	1.48	3.1	5.8	0.34	1.82
130	147	4606	9.8	9.3	8.5	9.5	10.0	1.51	3.2	5.9	0.34	1.90
135	152	4422	10.1	9.5	8.6	9.7	10.1	1.54	3.2	6.0	0.34	1.98
140	157	4246	10.3	9.8	8.8	9.8	10.3	1.57	3.3	6.2	0.34	2.05
145	162	4078	10.6	10.0	8.9	10.0	10.4	1.60	3.3	6.3	0.34	2.13
150	167	3918	10.9	10.3	9.0	10.1	10.6	1.63	3.4	6.4	0.34	2.21
155	172	3766	11.1	10.5	9.1	10.2	10.7	1.66	3.4	6.4	0.34	2.29
160	177	3622	11.4	10.8	9.2	10.4	10.8	1.69	3.5	6.5	0.34	2.37
165	182	3485	11.6	11.0	9.4	10.5	10.9	1.71	3.5	6.6	0.34	2.45
170	187	3354	11.9	11.2	9.5	10.6	11.1	1.74	3.6	6.7	0.34	2.53
175	192	3231	12.1	11.5	9.6	10.7	11.2	1.77	3.6	6.7	0.34	2.62
180	197	3113	12.4	11.7	9.7	10.8	11.3	1.80	3.6	6.8	0.34	2.70
SI = 6 m Initial Density = 15000 stems/ha												
5	22	14964	0.5	0.5	1.5	1.8	1.8	0.66	1.1	0.3	0.76	0.34
10	27	14871	1.1	1.0	1.9	2.3	2.4	0.68	1.3	0.5	0.70	0.37
15	32	14722	1.6	1.5	2.4	2.8	2.9	0.71	1.4	0.8	0.64	0.40
20	37	14517	2.1	2.0	2.8	3.3	3.4	0.74	1.6	1.0	0.59	0.44
25	42	14262	2.5	2.4	3.2	3.7	3.9	0.78	1.7	1.3	0.55	0.48
30	47	13960	3.0	2.8	3.6	4.2	4.4	0.81	1.8	1.6	0.51	0.52
35	52	13618	3.4	3.1	3.9	4.6	4.8	0.84	1.9	1.9	0.48	0.57
40	57	13242	3.7	3.5	4.3	5.0	5.2	0.88	2.0	2.2	0.45	0.62
45	62	12838	4.1	3.8	4.6	5.4	5.6	0.91	2.0	2.5	0.43	0.67
50	67	12414	4.5	4.2	4.9	5.7	6.0	0.95	2.1	2.8	0.41	0.72
55	72	11974	4.8	4.5	5.2	6.1	6.4	0.98	2.1	3.1	0.40	0.78
60	77	11526	5.1	4.8	5.5	6.4	6.7	1.01	2.2	3.4	0.39	0.83
65	82	11074	5.5	5.1	5.7	6.7	7.0	1.05	2.3	3.6	0.37	0.89
70	87	10624	5.8	5.4	6.0	7.0	7.3	1.08	2.3	3.9	0.36	0.95
75	92	10178	6.1	5.7	6.2	7.2	7.6	1.11	2.4	4.1	0.36	1.01
80	97	9740	6.4	6.0	6.4	7.5	7.9	1.14	2.4	4.3	0.35	1.07
85	102	9314	6.7	6.3	6.7	7.7	8.1	1.17	2.5	4.5	0.34	1.13
90	107	8900	7.0	6.6	6.9	8.0	8.4	1.21	2.5	4.7	0.34	1.19
95	112	8500	7.3	6.9	7.1	8.2	8.6	1.24	2.5	4.9	0.33	1.26
100	117	8116	7.6	7.1	7.2	8.4	8.8	1.27	2.6	5.1	0.33	1.32
105	122	7748	7.8	7.4	7.4	8.6	9.1	1.30	2.6	5.2	0.33	1.39
110	127	7396	8.1	7.7	7.6	8.8	9.3	1.33	2.7	5.4	0.33	1.46
115	132	7061	8.4	7.9	7.8	9.0	9.4	1.36	2.7	5.6	0.32	1.53
120	137	6742	8.7	8.2	7.9	9.1	9.6	1.39	2.8	5.7	0.32	1.59
125	142	6439	8.9	8.4	8.1	9.3	9.8	1.42	2.8	5.8	0.32	1.66
130	147	6152	9.2	8.7	8.2	9.5	10.0	1.45	2.9	6.0	0.32	1.74
135	152	5879	9.5	8.9	8.3	9.6	10.1	1.47	2.9	6.1	0.32	1.81
140	157	5621	9.7	9.2	8.5	9.8	10.3	1.50	3.0	6.2	0.32	1.88
145	162	5378	10.0	9.4	8.6	9.9	10.4	1.53	3.0	6.3	0.32	1.95
150	167	5147	10.2	9.7	8.7	10.0	10.6	1.56	3.1	6.4	0.32	2.03
155	172	4929	10.5	9.9	8.8	10.2	10.7	1.59	3.1	6.5	0.32	2.10
160	177	4723	10.7	10.2	8.9	10.3	10.8	1.62	3.2	6.6	0.32	2.18
165	182	4528	11.0	10.4	9.0	10.4	10.9	1.64	3.2	6.6	0.32	2.25
170	187	4344	11.2	10.6	9.1	10.5	11.1	1.67	3.3	6.7	0.32	2.33
175	192	4170	11.5	10.9	9.2	10.6	11.2	1.70	3.3	6.8	0.32	2.40
180	197	4005	11.7	11.1	9.3	10.7	11.3	1.72	3.4	6.8	0.32	2.48

Bh age	Total age	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai
SI = 6 m Initial Density = 10000 stems/ha																	
5	22	0.3	344	1.00	0.562	0.548	0.3	0.00	1130	8525	47	34	B	U	0.0000	0.2	0.01
10	27	1.2	196	1.00	0.437	0.425	1.1	0.01	1308	8525	71	37	B	U	0.0001	1.2	0.04
15	32	2.5	160	1.01	0.360	0.349	1.9	0.03	1500	8525	96	40	B	U	0.0003	3.1	0.10
20	37	4.1	145	1.01	0.309	0.299	2.7	0.05	1701	8525	121	44	B	U	0.0006	6.0	0.16
25	42	5.9	137	1.02	0.272	0.263	3.5	0.07	1906	8525	145	48	B	U	0.0011	10.1	0.24
30	47	7.8	132	1.03	0.246	0.237	4.3	0.09	2110	8525	167	52	C	U	0.0016	15.3	0.32
35	52	9.8	129	1.04	0.225	0.217	5.1	0.11	2310	8525	189	56	C	U	0.0023	21.4	0.41
40	57	11.8	127	1.05	0.210	0.202	5.8	0.13	2503	8525	209	60	C	U	0.0032	28.5	0.50
45	62	13.8	125	1.07	0.198	0.190	6.5	0.16	2687	8525	227	64	C	U	0.0041	36.2	0.58
50	67	15.7	123	1.08	0.188	0.181	7.1	0.18	2859	8525	243	67	C	U	0.0052	44.4	0.66
55	72	17.6	122	1.10	0.180	0.173	7.7	0.20	3019	8525	258	70	C	U	0.0064	53.1	0.73
60	77	19.4	121	1.12	0.174	0.167	8.2	0.22	3167	8525	270	73	D	U	0.0078	62.1	0.80
65	82	21.2	119	1.14	0.169	0.162	8.7	0.24	3301	8525	282	75	D	U	0.0092	71.2	0.87
70	87	22.8	118	1.16	0.165	0.158	9.1	0.26	3423	8525	291	77	D	U	0.0108	80.3	0.92
75	92	24.3	117	1.18	0.162	0.155	9.5	0.28	3532	8525	299	79	D	U	0.0124	89.3	0.97
80	97	25.7	116	1.20	0.159	0.152	9.8	0.30	3629	8525	306	81	D	U	0.0142	98.2	1.01
85	102	27.1	115	1.23	0.157	0.151	10.1	0.31	3714	8525	312	83	D	U	0.0160	106.8	1.04
90	107	28.3	114	1.25	0.155	0.149	10.3	0.33	3788	8525	316	84	D	U	0.0180	115.2	1.07
95	112	29.4	113	1.28	0.154	0.148	10.5	0.34	3852	8525	320	85	D	U	0.0201	123.3	1.10
100	117	30.4	111	1.30	0.154	0.147	10.7	0.35	3907	8525	322	86	D	U	0.0222	130.9	1.12
105	122	31.3	110	1.33	0.153	0.147	10.8	0.36	3953	8525	324	86	D	U	0.0244	138.3	1.13
110	127	32.1	109	1.36	0.153	0.147	10.9	0.37	3991	8525	324	87	D	U	0.0267	145.2	1.14
115	132	32.9	108	1.39	0.153	0.147	11.0	0.37	4021	8525	325	87	D	U	0.0291	151.7	1.15
120	137	33.5	107	1.41	0.153	0.147	11.0	0.38	4046	8525	324	87	D	U	0.0315	157.8	1.15
125	142	34.1	106	1.44	0.154	0.147	11.1	0.39	4064	8525	324	87	D	U	0.0341	163.6	1.15
130	147	34.7	105	1.47	0.154	0.148	11.1	0.39	4077	8525	322	87	D	U	0.0367	168.9	1.15
135	152	35.1	104	1.50	0.155	0.149	11.1	0.39	4086	8525	321	87	D	U	0.0393	173.8	1.14
140	157	35.6	103	1.53	0.156	0.149	11.1	0.40	4090	8525	319	87	D	U	0.0420	178.4	1.13
145	162	35.9	102	1.57	0.157	0.150	11.0	0.40	4091	8525	317	87	D	U	0.0448	182.7	1.13
150	167	36.2	101	1.60	0.158	0.151	11.0	0.40	4089	8525	314	87	D	U	0.0476	186.5	1.11
155	172	36.5	100	1.63	0.159	0.152	11.0	0.40	4084	8525	312	86	D	U	0.0505	190.1	1.10
160	177	36.7	99	1.66	0.160	0.154	10.9	0.40	4076	8525	309	86	D	U	0.0534	193.4	1.09
165	182	36.9	98	1.69	0.162	0.155	10.8	0.40	4066	8525	306	85	D	U	0.0564	196.4	1.08
170	187	37.1	97	1.73	0.163	0.156	10.8	0.40	4054	8525	303	85	D	U	0.0593	199.0	1.06
175	192	37.3	96	1.76	0.164	0.157	10.7	0.40	4041	8525	300	85	D	U	0.0624	201.5	1.05
180	197	37.4	95	1.79	0.166	0.159	10.6	0.40	4027	8525	297	84	D	U	0.0654	203.7	1.03
SI = 6 m Initial Density = 15000 stems/ha																	
5	22	0.3	410	0.82	0.460	0.447	0.4	0.00	1668	12414	66	51	C	U	0.0000	0.2	0.01
10	27	1.4	216	0.82	0.359	0.347	1.3	0.02	1900	12414	98	54	C	U	0.0001	1.4	0.05
15	32	3.0	173	0.82	0.296	0.286	2.4	0.04	2146	12414	131	59	C	U	0.0002	3.6	0.11
20	37	5.0	155	0.83	0.254	0.245	3.5	0.06	2401	12414	163	63	C	U	0.0005	7.2	0.19
25	42	7.2	146	0.84	0.224	0.216	4.5	0.08	2657	12414	195	68	C	U	0.0008	12.1	0.29
30	47	9.6	140	0.85	0.203	0.194	5.6	0.11	2909	12414	224	73	D	U	0.0013	18.3	0.39
35	52	12.1	136	0.86	0.186	0.179	6.6	0.14	3152	12414	252	78	D	U	0.0019	25.7	0.49
40	57	14.5	133	0.87	0.174	0.166	7.5	0.17	3383	12414	277	82	D	U	0.0026	34.1	0.60
45	62	17.0	131	0.88	0.164	0.157	8.4	0.20	3599	12414	300	86	D	U	0.0034	43.3	0.70
50	67	19.4	129	0.90	0.157	0.150	9.2	0.23	3798	12414	320	90	D	U	0.0043	53.1	0.79
55	72	21.7	128	0.91	0.151	0.144	9.9	0.25	3980	12414	338	93	D	U	0.0053	63.4	0.88
60	77	23.9	126	0.93	0.146	0.139	10.5	0.28	4143	12414	353	96	D	U	0.0064	74.0	0.96
65	82	25.9	125	0.95	0.142	0.135	11.1	0.31	4289	12414	366	99	D	U	0.0076	84.6	1.03
70	87	27.8	123	0.97	0.139	0.132	11.6	0.33	4416	12414	377	101	D	U	0.0090	95.3	1.09
75	92	29.6	122	0.99	0.137	0.130	12.0	0.35	4527	12414	385	103	D	U	0.0104	105.8	1.15
80	97	31.3	121	1.01	0.135	0.129	12.4	0.37	4622	12414	392	104	D	U	0.0119	116.0	1.19
85	102	32.8	119	1.04	0.134	0.127	12.7	0.39	4702	12414	398	105	D	U	0.0135	126.0	1.23
90	107	34.1	118	1.06	0.133	0.126	12.9	0.40	4769	12414	401	106	D	U	0.0152	135.5	1.26
95	112	35.3	117	1.08	0.132	0.126	13.1	0.42	4823	12414	404	107	D	U	0.0170	144.7	1.29
100	117	36.4	116	1.11	0.132	0.126	13.3	0.43	4866	12414	405	107	D	U	0.0189	153.3	1.31
105	122	37.4	114	1.14	0.132	0.125	13.4	0.44	4898	12414	406	108	D	U	0.0208	161.5	1.32
110	127	38.3	113	1.16	0.132	0.126	13.4	0.45	4922	12414	405	108	D	U	0.0229	169.2	1.33
115	132	39.1	112	1.19	0.133	0.126	13.5	0.45	4937	12414	404	108	D	U	0.0250	176.4	1.33
120	137	39.8	111	1.22	0.133	0.127	13.5	0.46	4946	12414	402	108	D	U	0.0272	183.2	1.33
125	142	40.4	110	1.25	0.134	0.127	13.5	0.47	4948	12414	400	107	D	U	0.0294	189.4	1.33
130	147	40.9	109	1.27	0.135	0.128	13.5	0.47	4944	12414	397	107	D	U	0.0317	195.2	1.33
135	152	41.3	108	1.30	0.136	0.129	13.4	0.47	4936	12414	393	106	D	U	0.0341	200.5	1.32
140	157	41.7	106	1.33	0.137	0.130	13.4	0.48	4923	12414	390	106	D	U	0.0366	205.5	1.31
145	162	42.1	105	1.36	0.138	0.131	13.3	0.48	4907	12414	386	105	D	U	0.0390	209.9	1.29
150	167	42.3	104	1.39	0.139	0.132	13.2	0.48	4888	12414	382	104	D	U	0.0416	214.1	1.28
155	172	42.6	103	1.42	0.140	0.133	13.1	0.48	4867	12414	378	104	D	U	0.0442	217.8	1.26
160	177	42.8	102	1.46	0.142	0.134	13.0	0.48	4843	12414	373	103	D	U	0.0468	221.2	1.25
165	182	42.9	101	1.49	0.143	0.136	12.9	0.48	4817	12414	369	102	D	U	0.0495	224.2	1.23
170	187	43.0	100	1.52	0.144	0.137	12.8	0.48	4790	12414	364	101	D	U	0.0523	227.0	1.21
175	192	43.1	99	1.55	0.146	0.139	12.7	0.48	4762	12414	360	100	D	U	0.0550	229.4	1.19
180	197	43.1	98	1.58	0.147	0.140	12.6	0.47	4733	12414	355	99	D	U	0.0578	231.6	1.17

Bh age	Total age	Util. std. = 8/6 N	D	V/ha	Mai	Util. std. = 13/7 N	D	V/ha	Mai	Util. std = 15/10 N	D	V/ha	Mai
SI = 6 m Initial Density = 10000 stems/ha													
5	22	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	27	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	32	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	37	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	42	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	47	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	52	3	8.3	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	57	31	8.3	0.4	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	62	126	8.3	1.5	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
50	67	322	8.3	4.2	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00
55	72	614	8.4	8.7	0.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00
60	77	971	8.5	14.8	0.19	2	12.3	0.1	0.00	0	0.0	0.0	0.00
65	82	1355	8.6	22.4	0.27	5	12.7	0.2	0.00	0	0.0	0.0	0.00
70	87	1734	8.7	31.1	0.36	14	12.7	0.7	0.01	0	0.0	0.0	0.00
75	92	2085	8.9	40.5	0.44	31	12.8	1.6	0.02	2	14.3	0.1	0.00
80	97	2394	9.0	50.3	0.52	59	12.9	3.1	0.03	5	14.5	0.3	0.00
85	102	2657	9.2	60.3	0.59	100	13.0	5.4	0.05	11	14.6	0.7	0.01
90	107	2872	9.3	70.3	0.66	156	13.1	8.8	0.08	22	14.7	1.4	0.01
95	112	3041	9.5	80.2	0.71	225	13.1	13.1	0.12	38	14.8	2.5	0.02
100	117	3168	9.7	89.7	0.76	306	13.2	18.5	0.16	62	14.8	4.1	0.03
105	122	3258	9.8	98.9	0.81	396	13.3	24.7	0.20	93	14.9	6.4	0.05
110	127	3317	10.0	107.7	0.85	492	13.4	31.6	0.25	132	15.0	9.4	0.07
115	132	3347	10.2	116.0	0.88	591	13.5	39.2	0.30	178	15.1	13.0	0.10
120	137	3355	10.4	123.9	0.90	691	13.6	47.3	0.34	230	15.2	17.3	0.13
125	142	3344	10.6	131.2	0.92	788	13.8	55.6	0.39	288	15.2	22.3	0.16
130	147	3317	10.7	138.1	0.94	882	13.9	64.1	0.44	349	15.3	27.8	0.19
135	152	3279	10.9	144.6	0.95	970	14.0	72.5	0.48	412	15.4	33.7	0.22
140	157	3231	11.1	150.6	0.96	1051	14.1	80.9	0.51	477	15.5	40.1	0.25
145	162	3174	11.3	156.1	0.96	1125	14.2	89.0	0.55	541	15.6	46.6	0.29
150	167	3112	11.5	161.2	0.96	1191	14.4	96.9	0.58	603	15.7	53.3	0.32
155	172	3046	11.7	165.9	0.96	1249	14.5	104.5	0.61	664	15.8	60.2	0.35
160	177	2977	11.9	170.2	0.96	1300	14.6	111.7	0.63	721	16.0	67.0	0.38
165	182	2906	12.1	174.2	0.96	1343	14.8	118.5	0.65	775	16.1	73.8	0.40
170	187	2834	12.3	177.8	0.95	1379	14.9	125.0	0.67	824	16.2	80.3	0.43
175	192	2762	12.5	181.1	0.94	1409	15.0	131.0	0.68	870	16.3	86.8	0.45
180	197	2690	12.7	184.1	0.93	1432	15.2	136.6	0.69	911	16.4	93.1	0.47
SI = 6 m Initial Density = 15000 stems/ha													
5	22	.	0.0	0.0	0.00	.	0.0	0.0	0.00	.	0.0	0.0	0.00
10	27	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	32	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	37	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	42	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	47	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	52	1	8.3	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	57	11	8.2	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	62	64	8.2	0.7	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
50	67	213	8.2	2.6	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00
55	72	440	8.3	5.8	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00
60	77	832	8.3	11.7	0.15	0	0.0	0.0	0.00	0	0.0	0.0	0.00
65	82	1222	8.4	18.7	0.23	1	12.5	0.1	0.00	0	0.0	0.0	0.00
70	87	1761	8.5	28.5	0.33	5	12.6	0.2	0.00	0	0.0	0.0	0.00
75	92	2182	8.6	38.4	0.42	12	12.7	0.6	0.01	0	0.0	0.0	0.00
80	97	2573	8.8	49.2	0.51	28	12.7	1.4	0.01	1	14.5	0.1	0.00
85	102	2921	8.9	60.5	0.59	54	12.8	2.9	0.03	3	14.4	0.2	0.00
90	107	3354	9.0	73.1	0.68	94	12.9	5.1	0.05	8	14.5	0.5	0.00
95	112	3594	9.2	84.5	0.75	149	13.0	8.4	0.07	17	14.6	1.1	0.01
100	117	3783	9.3	95.7	0.82	218	13.0	12.8	0.11	32	14.6	2.1	0.02
105	122	3924	9.5	106.5	0.87	302	13.1	18.2	0.15	53	14.7	3.5	0.03
110	127	4023	9.7	116.9	0.92	398	13.2	24.6	0.19	83	14.8	5.6	0.04
115	132	4084	9.8	126.7	0.96	501	13.3	31.9	0.24	120	14.9	8.4	0.06
120	137	4112	10.0	136.0	0.99	609	13.4	40.0	0.29	164	14.9	11.9	0.09
125	142	4115	10.2	144.7	1.02	720	13.5	48.7	0.34	218	15.0	16.2	0.11
130	147	4095	10.3	152.9	1.04	831	13.6	57.7	0.39	277	15.1	21.1	0.14
135	152	4058	10.5	160.4	1.05	939	13.7	67.0	0.44	341	15.2	26.7	0.18
140	157	4006	10.7	167.4	1.06	1041	13.8	76.4	0.49	410	15.3	32.9	0.21
145	162	3943	10.9	173.9	1.07	1138	14.0	85.7	0.53	481	15.4	39.5	0.24
150	167	3868	11.1	179.8	1.07	1225	14.1	94.8	0.57	550	15.5	46.4	0.28
155	172	3788	11.3	185.3	1.08	1306	14.2	103.7	0.60	621	15.6	53.6	0.31
160	177	3703	11.4	190.3	1.07	1377	14.3	112.2	0.63	689	15.7	60.9	0.34
165	182	3616	11.6	194.8	1.07	1440	14.4	120.4	0.66	756	15.8	68.3	0.37
170	187	3528	11.8	198.9	1.06	1497	14.6	128.1	0.68	820	15.9	75.7	0.40
175	192	3436	12.0	202.7	1.05	1542	14.7	135.4	0.70	877	16.0	83.0	0.43
180	197	3344	12.2	206.0	1.04	1580	14.8	142.2	0.72	931	16.1	90.1	0.46

Table A8. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 6 m Initial Density = 20000 stems/ha																																								
5	22	19947	0.4	0.4	1.5	1.8	1.8	0.66	1.1	0.4	0.74	0.34	0.3	464	0.71	0.400	0.387	0.4	0.01	2201	16201	84	68	C	U	0.0000	0.2	0.01	.	0.0	0.0	0.00	.	0.0	0.0	0.00	.	0.0	0.0	0.00
10	27	19810	1.0	0.9	1.9	2.3	2.4	0.68	1.2	0.6	0.67	0.36	1.6	232	0.71	0.312	0.301	1.6	0.02	2481	16201	123	72	D	U	0.0001	1.5	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	32	19589	1.5	1.4	2.3	2.8	2.9	0.70	1.4	0.8	0.62	0.39	3.5	183	0.71	0.257	0.248	2.8	0.04	2774	16201	163	76	D	U	0.0002	4.1	0.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	37	19286	2.0	1.8	2.7	3.3	3.4	0.73	1.5	1.1	0.57	0.42	5.8	163	0.72	0.221	0.212	4.1	0.07	3074	16201	203	82	D	U	0.0004	8.1	0.22	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	42	18908	2.4	2.2	3.1	3.7	3.9	0.76	1.6	1.4	0.52	0.46	8.4	152	0.73	0.196	0.187	5.4	0.10	3373	16201	241	87	D	U	0.0007	13.7	0.32	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	47	18462	2.8	2.6	3.5	4.2	4.4	0.79	1.7	1.7	0.49	0.50	11.2	146	0.74	0.177	0.169	6.7	0.13	3664	16201	277	93	D	U	0.0011	20.7	0.44	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	52	17958	3.2	2.9	3.8	4.6	4.8	0.83	1.7	2.0	0.46	0.54	14.0	142	0.75	0.163	0.156	7.9	0.17	3941	16201	310	98	D	U	0.0016	29.1	0.56	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	57	17406	3.5	3.3	4.2	5.0	5.2	0.86	1.8	2.3	0.43	0.59	16.9	138	0.76	0.152	0.145	9.0	0.20	4201	16201	339	103	D	U	0.0022	38.6	0.67	4	8.1	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	62	16817	3.9	3.6	4.5	5.3	5.6	0.89	1.9	2.6	0.41	0.64	19.7	136	0.77	0.144	0.137	10.0	0.23	4441	16201	366	107	D	U	0.0029	49.1	0.79	32	8.1	0.4	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
50	67	16201	4.2	3.9	4.8	5.7	6.0	0.92	1.9	2.9	0.39	0.68	22.5	134	0.79	0.138	0.131	11.0	0.27	4658	16201	389	111	D	U	0.0037	60.2	0.89	133	8.1	1.6	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
55	72	15568	4.5	4.2	5.1	6.0	6.4	0.95	2.0	3.1	0.38	0.73	25.1	132	0.80	0.133	0.126	11.8	0.30	4853	16201	409	114	D	U	0.0046	71.8	0.99	317	8.2	4.0	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00
60	77	14926	4.9	4.5	5.3	6.4	6.7	0.99	2.0	3.4	0.37	0.79	27.6	130	0.82	0.129	0.122	12.5	0.33	5025	16201	426	117	D	U	0.0056	83.6	1.08	676	8.2	9.0	0.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00
65	82	14283	5.2	4.8	5.6	6.7	7.0	1.02	2.1	3.6	0.35	0.84	29.9	128	0.84	0.126	0.119	13.2	0.36	5174	16201	441	120	D	U	0.0067	95.6	1.16	1072	8.3	15.6	0.19	0	0.0	0.0	0.00	0	0.0	0.0	0.00
70	87	13647	5.5	5.1	5.8	6.9	7.3	1.05	2.1	3.9	0.35	0.89	32.1	127	0.86	0.123	0.117	13.7	0.38	5302	16201	452	122	D	U	0.0079	107.5	1.23	1658	8.4	25.3	0.29	1	12.5	0.1	0.00	0	0.0	0.0	0.00
75	92	13022	5.8	5.4	6.1	7.2	7.6	1.08	2.2	4.1	0.34	0.95	34.1	125	0.88	0.122	0.115	14.2	0.41	5409	16201	461	123	D	U	0.0091	119.1	1.29	2144	8.5	35.5	0.38	5	12.6	0.3	0.00	0	0.0	0.0	0.00
80	97	12412	6.1	5.7	6.3	7.5	7.9	1.11	2.2	4.3	0.33	1.00	35.9	124	0.90	0.120	0.114	14.6	0.43	5498	16201	468	125	D	U	0.0105	130.5	1.34	2616	8.6	46.9	0.48	14	12.6	0.7	0.01	0	0.0	0.0	0.00
85	102	11822	6.4	6.0	6.5	7.7	8.1	1.14	2.3	4.5	0.33	1.06	37.5	123	0.92	0.119	0.113	14.9	0.45	5570	16201	473	126	D	U	0.0120	141.4	1.38	3051	8.7	59.1	0.58	30	12.7	1.6	0.02	1	14.4	0.1	0.00
90	107	11253	6.6	6.2	6.7	7.9	8.4	1.17	2.3	4.7	0.32	1.12	39.0	121	0.94	0.119	0.112	15.1	0.47	5626	16201	476	126	D	U	0.0135	151.9	1.42	3606	8.8	73.2	0.68	58	12.8	3.1	0.03	3	14.4	0.2	0.00
95	112	10708	6.9	6.5	6.9	8.2	8.6	1.20	2.4	4.9	0.32	1.18	40.3	120	0.97	0.119	0.112	15.3	0.48	5668	16201	477	126	D	U	0.0151	161.9	1.44	3927	9.0	85.9	0.76	100	12.9	5.5	0.05	8	14.5	0.5	0.00
100	117	10187	7.2	6.8	7.1	8.4	8.8	1.23	2.4	5.1	0.31	1.24	41.5	119	0.99	0.118	0.112	15.5	0.49	5698	16201	478	127	D	U	0.0168	171.4	1.46	4189	9.1	98.4	0.84	157	12.9	9.0	0.08	17	14.6	1.1	0.01
105	122	9690	7.5	7.0	7.2	8.6	9.1	1.26	2.5	5.3	0.31	1.30	42.5	117	1.02	0.119	0.112	15.6	0.50	5716	16201	477	126	D	U	0.0186	180.3	1.47	4394	9.3	110.6	0.90	231	13.0	13.6	0.11	32	14.6	2.1	0.02
110	127	9219	7.7	7.3	7.4	8.7	9.3	1.29	2.5	5.4	0.31	1.37	43.4	116	1.04	0.119	0.113	15.6	0.51	5725	16201	475	126	D	U	0.0205	188.6	1.48	4544	9.4	122.4	0.96	319	13.1	19.3	0.15	53	14.7	3.5	0.03
115	132	8772	8.0	7.6	7.5	8.9	9.4	1.32	2.6	5.6	0.31	1.43	44.2	115	1.07	0.120	0.113	15.6	0.52	5725	16201	472	126	D	U	0.0224	196.4	1.48	4645	9.6	133.6	1.01	417	13.2	26.0	0.20	81	14.8	5.6	0.04
120	137	8350	8.3	7.8	7.7	9.1	9.6	1.35	2.6	5.7	0.31	1.50	44.9	114	1.09	0.120	0.114	15.6	0.53	5717	16201	469	125	D	U	0.0244	203.6	1.48	4707	9.7	144.1	1.05	527	13.3	33.8	0.25	119	14.8	8.4	0.06
125	142	7950	8.5	8.1	7.8	9.3	9.8	1.37	2.7	5.8	0.31	1.56	45.5	112	1.12	0.121	0.114	15.6	0.53	5704	16201	465	124	D	U	0.0265	210.3	1.48	4732	9.9	154.0	1.08	643	13.4	42.4	0.30	165	14.9	12.0	0.08
130	147	7573	8.8	8.3	8.0	9.4	10.0	1.40	2.7	6.0	0.30	1.63	46.0	111	1.15	0.122	0.115	15.5	0.54	5684	16201	461	123	D	U	0.0286	216.4	1.47	4730	10.1	163.3	1.11	763	13.5	51.5	0.35	219	15.0	16.3	0.11
135	152	7218	9.1	8.6	8.1	9.6	10.1	1.43	2.7	6.1	0.30	1.70	46.5	110	1.18	0.123	0.116	15.4	0.54	5661	16201	456	122	D	U	0.0308	222.1	1.46	4701	10.3	171.9	1.13	883	13.6	61.2	0.40	280	15.1	21.3	0.14
140	157	6883	9.3	8.8	8.2	9.7	10.3	1.46	2.8	6.2	0.30	1.76	46.8	109	1.21	0.124	0.117	15.4	0.54	5633	16201	451	121	D	U	0.0330	227.3	1.45	4651	10.4	179.8	1.14	998	13.7	71.1	0.45	346	15.1	27.1	0.17
145	162	6567	9.6	9.0	8.4	9.8	10.4	1.49	2.8	6.3	0.30	1.83	47.1	108	1.23	0.125	0.118	15.2	0.54	5602	16201	445	120	D	U	0.0353	232.0	1.43	4588	10.6	187.1	1.15	1112	13.8	81.1	0.50	418	15.2	33.4	0.21
150	167	6270	9.8	9.3	8.5	10.0	10.6	1.51	2.9	6.4	0.30	1.90	47.4	107	1.26	0.127	0.120	15.1	0.54	5568	16201	440	119	D	U	0.0377	236.3	1.41	4509	10.8	193.8	1.16	1217	13.9	91.0	0.54	492	15.3	40.2	0.24
155	172	5990	10.1	9.5	8.6	10.1	10.7	1.54	2.9	6.5	0.30	1.97	47.6	106	1.29	0.128	0.121	15.0	0.54	5532	16201	434	118	D	U	0.0401	240.2	1.39	4424	10.9	200.0	1.16	1316	14.0	100.8	0.59	567	15.4	47.5	0.28
160	177	5726	10.3	9.7	8.7	10.2	10.8	1.57	3.0	6.6	0.31	2.05	47.7	104	1.32	0.129	0.122	14.9	0.54	5494	16201	428	117	D	U	0.0426	243.7	1.37	4329	11.1	205.6	1.16	1405	14.1	110.4	0.62	643	15.5	55.0	0.31
165	182	5478	10.5	10.0	8.8	10.3	10.9	1.59	3.0	6.6	0.31	2.12	47.8	103	1.35	0.131	0.123	14.7	0.54	5454	16201	423	116	D	U	0.0451	246.8	1.35	4228	11.3	210.6	1.16	1485	14.2	119.6	0.66	716	15.6	62.7	0.34
170	187	5244	10.8	10.2	8.9	10.4	11.1	1.62	3.1	6.7	0.31	2.19	47.9	102	1.38	0.132	0.125	14.6	0.54	5414	16201	417	115	D	U	0.0476	249.6	1.33	4125	11.5	215.3	1.15	1557	14.3	128.4	0.69	788	15.7	70.5	0.38
175	192	5024	11.0	10.4	9.0	10.5	11.2	1.65	3.1	6.8	0.31	2.26	47.9	101	1.41	0.134	0.126	14.4	0.54	5373	16201	411	114	D	U	0.0502	252.1	1.31	4022	11.7	219.4	1.14	1620	14.5	136.7	0.71	857	15.8	78.3	0.41
180	197	4816	11.3	10.7	9.1	10.6	11.3	1.67	3.2	6.9	0.31	2.34	47.9	100	1.44	0.135	0.128	14.3	0.53	5331	16201	405	113	D	U	0.0528	254.3	1.29	3914	11.8	223.2	1.13	1672	14.6	144.6	0.73	921	15.9	86.0	0.44
SI = 6 m Initial Density = 30000 stems/ha																																								
5	22	29910	0.3	0.3	1.4	1.8	1.8	0.66	1.0	0.4	0.71	0.34	0.3	567	0.58	0.328	0.316	0.5	0.01	3253	23575	120	101	D	U	0.0000	0.2	0.01	.	0.0	0.0	0.00	.	0.0	0.0	0.00	.	0.0	0.0	0.00
10	27	29677	0.9	0.8	1.8	2.3	2.4	0.67	1.1	0.6	0.64	0.36	1.8	257	0.58	0.256	0.246	1.9	0.03	3622	23575	171	106	D	U	0.0001	1.7	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	32	29298	1.3	1.3	2.2	2.8	2.9	0.70	1.2	0.9	0.58	0.38	4.2	199	0.58	0.211	0.203	3.6	0.05	3996	23575	224	111	D	U	0.0002	4.8	0.15	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	37	28779	1.8	1.6	2.6	3.2	3.4	0.72	1.3	1.1	0.53	0.41	7.1	175	0.59	0.182	0.174	5.3	0.09	4373	23575	276	118	D	U	0.0003	9.6	0.26	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	42	28132	2.2	2.0	3.0	3.7	3.9	0.75	1.4	1.4	0.49	0.44	10.3	162	0.60	0.161	0.154	7.0	0.13	4741	23575	326	124	D	U	0.0006	16.3	0.39	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	47	27371	2.5	2.4	3.3	4.1	4.4	0.78	1.5	1.7	0.45	0.48	13.8	155	0.60	0.146	0.139	8.6	0.17	5093	23575	372	130	D	U	0.0009	24.7	0.52	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	52	26516	2.9	2.7	3.7	4.5	4.8	0.80	1.6	2.0	0.42	0.51	17.3	149	0.61	0.135	0.128	10.2	0.21	5422	23575	414	136	D	U	0.0013	34.7	0.66	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	57	25585	3.2	3.0	4.0	4.9	5.2	0.83	1.6	2.3	0.40	0.55	20.9	145	0.63	0.127	0.120	11.6	0.25	5724	23575	452	141	D	U	0.0018	46.1	0.80	1	8.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	62	24598	3.5	3.3	4.3	5.3	5.6	0.86	1.7	2.6	0.38	0.59	24.3	142	0.64	0.120	0.113	12.9	0.30	5995	23575	485	146	D	U	0.0024	58.5	0.94	9	8.0	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
50	67	23575	3.9	3.6	4.6	5.7	6.0	0.89	1.7	2.9	0.36	0.64	27.7	140	0.65	0.115	0.109	14.1	0.34	6234	23575	514	150	D	U	0.0030	71.7	1.07	55	8.0	0.6	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
55	72	22532	4.2	3.9	4.9	6.0	6.4	0.92	1.8	3.2	0.35	0.68	30.9	138	0.67	0.111	0.105	15.1	0.38	6441	23575	537	153	D	U	0.0038	85.4	1.18	168	8.1	2.0	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
60	77	21485	4.5	4.2	5.1	6.3	6.7	0.95	1.8	3.4	0.34	0.73	33.9	136	0.68	0.108	0.102	16.0	0.42	6617	23575	557	156	D	U	0.0046	99.3	1.28	442	8.1	5.6	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00
65	82	20446	4.8	4.5	5.4	6.6	7.0	0.98	1.9	3.7	0.33	0.77	36.6	134	0.70	0.106	0.100	16.8	0.45	6763	23575	573	158	D	U	0.0055	113.3	1.38	798	8.2	10.9	0.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00
70	87	19427	5.1	4.8	5.6	6.9	7.3	1.01	1.9	3.9	0.32	0.82	39.2	132	0.72	0.104	0.098	17.4	0.48	6881	23575	585	160	D	U	0.0065	127.2	1.46	1392	8.2	19.7	0.23	0	0.0	0.0	0.00	0	0.0	0.0	0.00
75	92	18435	5.4	5.0	5.8	7.2	7.6	1.04	1.9	4.1	0.31	0.87	41.5	130	0.74	0.103	0.097	17.9	0.51	6974	23575	594	161	D	U	0.0076	140.7	1.52	1942	8.3	29.7	0.32	1	12.5	0.1	0.00	0	0.0	0.0	0.00
80	97	17478	5.6	5.3	6.0	7.4	7.9	1.06	2.0	4.3	0.31	0.92	43.5	129	0.76	0.102	0.096	18.3	0.53	7044	23575	600	161	D	U	0.0088	153.8	1.58	2515	8.4	41.5	0.43	4	12.6	0.2	0.00	0	0.0	0.0	0.00
85	102	16559	5.9	5.6	6.2	7.6	8.1	1.09	2.0	4.5	0.30	0.97	45.4	127	0.78	0.102	0.095	18.7	0.56	7093	23575	604	161	D	U	0.0100	166.3	1.63	3290	8.5	56.4	0.55	11	12.6	0.5	0.00	0	0.0	0.0	0.00
90	107	15682	6.2	5.8	6.4	7.9	8.4	1.12	2.1	4.7	0.30	1.03	47.1	126	0.80	0.101	0.095	18.9	0.57	7125	23575	606	161	D	U	0.0114	178.3	1.66	3817	8.6	70.5	0.66	24	12.7	1.3	0.01	1	14.3	0.1	0.00
95	112	14848	6.5	6.1	6.6	8.1	8.6	1.15	2.1	4.9	0.29	1.08	48.5	124	0.82	0.101	0.095	19.1	0.59	7140	23575	605	161	D	U	0.0128	189.7	1.69	4285	8.7	85.0	0.76	48	12.7	2.6	0.02	2	14.4	0.1	0.00
100	117	14058	6.7	6.3	6.8	8.3	8.8	1.18	2.2	5.1	0.29	1.14	49.8	123	0.84	0.102	0.095	19.2	0.61	7141	23575	603	160	D	U	0.0143	200.4	1.71	4682	8.9	99.6	0.85	86	12.8	4.8	0.04	6	14.4	0.4	0.00
105	122	13312	7.0	6.6	6.9	8.5	9.1	1.21	2.2	5.2	0.29	1.19	50.9	122	0.87	0.102	0.096	19.3	0.62	7130	23575	600	159	D	U	0.0158	210.4	1.72	5007	9.0	114.0	0.93	138	12.9	8.0	0.07	12	14.5	0.8	0.01
110	127	12608	7.2	6.8	7.1	8.7	9.3	1.23	2.3	5.4	0.29	1.25	51.9	120	0.89	0.103	0.096	19.3	0.63	7109	23575	596	158	D	U	0.0174	219.7	1.73	5263	9.1	127.9	1.00	207	12.9	12.3	0.10	23	14.6	1.6	0.01
115	132	11946	7.5	7.1	7.2	8.8	9.4	1.26	2.3	5.6	0.29	1.31	52.7	119	0.91	0.103	0.097	19.3	0.63	7079	23575	590	156	D	U	0.0191	228.4	1.73	5457	9.3	141.3	1.07	294	13.0	17.8	0.13	41	14.6	2.8	0.02
120	137	11324	7.8	7.3	7.4	9.0	9.6	1.29	2.3	5.7	0.29	1.37	53.5	118	0.94	0.104	0.098	19.2	0.64	7041	23575	584	155	D	U	0.0209	236.4	1.72	5591	9.4	154.0	1.12	395	13.1	24.5	0.18	66	14.7	4.5	0.03
125	142	10741	8.0	7.5	7.5	9.2	9.8	1.32	2.4	5.8	0.28	1.43	54.1	116	0.96	0.105	0.098	19.1	0.65	6998	23575	577	154	D	U	0.0227	243.7	1.71	5674	9.6	165.9	1.17	509	13.2	32.3	0.23	100	14.8	7.0	0.05
130	147	10193	8.3	7.8	7.7	9.3	10.0	1.34	2.4	6.0	0.28	1.49	54.5	115	0.99	0.106	0.099	19.0	0.65	6950	23575	570	152	D	U	0.0246	250.5	1.70	5713	9.7	177.1	1.20	631	13.3	41.1	0.28	141	14.8	10.2	0.07
135	152	9680	8.5	8.0	7.8	9.5	10.1	1.37	2.5	6.1	0.28	1.55	54.9	114	1.02	0.107	0.100	18.8	0.65	6897	23575	563	150	D	U	0.0265	256.7	1.69	5717	9.9	187.5	1.23	760	13.4	50.8	0.33	192	14.9	14.2	0.09
140	157	9200	8.7	8.3	7.9	9.6	10.3	1.40	2.5	6.2	0.28	1.62	55.3	113	1.04	0.108	0.101	18.7	0.65	6841	23575	555	149	D	U	0.0285	262.3	1.67	5688	10.1	197.1	1.25	892	13.5	61.0	0.39	252	15.0	19.0	0.12
145	162	8749	9.0	8.5	8.0	9.7	10.4	1.42	2.6	6.3	0.28	1.68	55.5	111	1.07	0.110	0.103	18.5	0.65	6783	23575	547	147	D	U	0.0306	267.4	1.65	5633	10.2	206.0	1.27	1023	13.5	71.6	0.44	318	15.0	24.5	0.15
150	167	8327	9.2	8.7	8.1	9.9	10.6	1.45	2.6	6.4	0.28	1.74	55.7	110	1.10	0.111	0.104	18.3	0.65	6723	23575	539	145	D	U	0.0327	272.1	1.63	5559	10.4	214.1	1.28	1150	13.6	82.5	0.49	390	15.1	30.8	0.18
155	172	7932	9.5	8.9	8.2	10.0	10.7	1.48	2.7	6.5	0.29	1.81	55.8	109	1.12	0.112	0.105	18.1	0.65	6661	23575	531	143	D	U	0.0348	276.2	1.60	5469	10.5	221.5	1.29	1274	13.7	93.4	0.54	468	15.2	37.6	0.22
160	177	7561	9.7	9.2	8.3	10.1	10.8	1.50	2.7	6.6	0.29	1.87	55.9	108	1.15	0.114	0.106	18.0	0.65	6598	23575	523	142	D	U	0.0370	279.9	1.58	5365	10.7	228.3	1.29	1389	13.8	104.3	0.59	547	15.3	45.0	0.25
165	182	7213	9.9	9.4	8.4	10.2	10.9	1.53	2.8	6.6	0.29	1.94	56.0	107	1.18	0.115	0.108	17.7	0.64	6535	23575	515	140	D	U	0.0393	283.3	1.55	5254	10.9	234.4	1.29	1498	13.9	114.9	0.63	629	15.4	52.8	0.29
170	187	6886	10.2	9.6	8.5	10.3	11.1	1.55	2.8	6.7	0.29	2.01	55.9	106	1.21	0.117	0.109	17.5	0.64	6472	23575	507	138	D	U	0.0416	286.2	1.53	5135	11.0	240.0	1.28	1597	14.1	125.3	0.67	711	15.5	60.9	0.33
175	192	6580	10.4	9.8	8.6	10.4	11.2	1.58	2.8	6.8	0.29	2.08	55.9	104	1.23	0.118	0.110	17.3	0.64	6408	23575	499	137	D	U	0.0439	288.8	1.50	5011	11.2	245.0	1.27	1686	14.2	135.3	0.70	792	15.6	69.2	0.36
180	197	6292	10.6	10.1	8.7	10.5	11.3	1.60	2.9	6.9	0.29	2.14	55.8	103	1.26	0.120	0.112	17.1	0.63	6345	23575	491	135	D	U	0.0463	291.1	1.48	4885	11.4	249.5	1.26	1766	14.3	144.8	0.73	871	15.6	77.6	0.39

Table A9. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

SI = 6 m   Initial Density = 50000 stems/ha

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
5	22	49830	0.3	0.2	1.4	1.8	1.8	0.65	0.9	0.4	0.68	0.34	0.3	775	0.45	0.255	0.245	0.5	0.01	5331	37811	188	167	D	U	0.0000	0.2	0.01	.	0.0	0.0	0.00	.	0.0	0.0	0.00	.	0.0	0.0	0.00
10	27	49384	0.8	0.7	1.8	2.3	2.4	0.67	1.0	0.7	0.60	0.35	2.2	295	0.45	0.200	0.191	2.5	0.03	5853	37811	260	173	D	U	0.0000	2.0	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	32	48653	1.2	1.1	2.1	2.7	2.9	0.69	1.1	0.9	0.54	0.37	5.3	221	0.45	0.165	0.157	4.9	0.07	6362	37811	336	180	D	U	0.0001	5.8	0.18	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	37	47652	1.6	1.4	2.5	3.2	3.4	0.71	1.2	1.2	0.49	0.39	9.1	191	0.46	0.142	0.135	7.3	0.12	6859	37811	409	188	D	U	0.0002	11.8	0.32	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	42	46405	1.9	1.8	2.9	3.7	3.9	0.73	1.2	1.5	0.45	0.42	13.3	176	0.46	0.126	0.120	9.6	0.17	7331	37811	479	195	D	U	0.0004	20.2	0.48	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	47	44946	2.3	2.1	3.2	4.1	4.4	0.75	1.3	1.8	0.41	0.45	17.9	166	0.47	0.115	0.108	11.9	0.23	7769	37811	543	202	D	U	0.0007	30.8	0.65	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	52	43316	2.6	2.4	3.5	4.5	4.8	0.78	1.4	2.1	0.39	0.48	22.5	160	0.48	0.106	0.100	14.0	0.28	8165	37811	600	208	D	U	0.0010	43.3	0.83	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	57	41556	2.9	2.7	3.8	4.9	5.2	0.80	1.4	2.3	0.36	0.51	27.2	155	0.49	0.100	0.094	16.0	0.34	8513	37811	650	213	D	U	0.0014	57.5	1.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	62	39709	3.2	3.0	4.1	5.3	5.6	0.83	1.4	2.6	0.34	0.55	31.7	151	0.50	0.095	0.089	17.8	0.40	8812	37811	693	218	D	U	0.0018	72.9	1.17	1	7.9	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
50	67	37811	3.5	3.3	4.4	5.6	6.0	0.86	1.5	2.9	0.33	0.58	36.0	148	0.51	0.092	0.086	19.3	0.45	9062	37811	729	221	D	U	0.0024	89.3	1.33	11	7.9	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
55	72	35899	3.8	3.5	4.6	5.9	6.4	0.88	1.5	3.2	0.32	0.62	40.1	146	0.53	0.089	0.083	20.6	0.51	9264	37811	759	224	D	U	0.0030	106.1	1.47	67	7.9	0.7	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
60	77	34000	4.1	3.8	4.9	6.3	6.7	0.91	1.6	3.4	0.30	0.66	43.8	143	0.54	0.087	0.081	21.8	0.55	9422	37811	782	225	D	U	0.0036	123.2	1.59	197	8.0	2.3	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
65	82	32138	4.3	4.1	5.1	6.5	7.0	0.93	1.6	3.7	0.30	0.70	47.2	141	0.56	0.085	0.079	22.7	0.60	9539	37811	799	226	D	U	0.0044	140.3	1.70	519	7.9	6.3	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00
70	87	30332	4.6	4.3	5.3	6.8	7.3	0.96	1.6	3.9	0.29	0.74	50.4	139	0.57	0.084	0.078	23.5	0.64	9619	37811	812	226	D	U	0.0052	157.0	1.80	936	8.0	12.2	0.14	0	0.0	0.0	0.00	0	0.0	0.0	0.00
75	92	28596	4.9	4.6	5.5	7.1	7.6	0.99	1.7	4.1	0.28	0.79	53.2	137	0.59	0.083	0.078	24.1	0.67	9666	37811	820	225	D	U	0.0061	173.3	1.88	1479	8.1	20.7	0.22	0	0.0	0.0	0.00	0	0.0	0.0	0.00
80	97	26938	5.1	4.8	5.7	7.3	7.9	1.01	1.7	4.3	0.28	0.83	55.6	135	0.61	0.083	0.077	24.6	0.70	9686	37811	824	224	D	U	0.0070	189.0	1.94	2112	8.2	31.7	0.33	0	0.0	0.0	0.00	0	0.0	0.0	0.00
85	102	25364	5.4	5.1	5.9	7.6	8.1	1.04	1.8	4.5	0.27	0.88	57.8	134	0.63	0.083	0.077	24.9	0.73	9681	37811	825	223	D	U	0.0080	204.0	1.99	3048	8.2	47.1	0.46	2	12.5	0.1	0.00	0	0.0	0.0	0.00
90	107	23877	5.6	5.3	6.1	7.8	8.4	1.07	1.8	4.7	0.27	0.92	59.8	132	0.65	0.083	0.077	25.2	0.75	9655	37811	823	221	D	U	0.0091	218.2	2.03	3759	8.3	62.3	0.58	6	12.6	0.3	0.00	0	0.0	0.0	0.00
95	112	22478	5.9	5.5	6.2	8.0	8.6	1.09	1.8	4.9	0.27	0.97	61.4	130	0.67	0.083	0.077	25.3	0.77	9611	37811	818	219	D	U	0.0103	231.5	2.06	4432	8.5	78.6	0.70	14	12.6	0.8	0.01	0	0.0	0.0	0.00
100	117	21165	6.2	5.8	6.4	8.2	8.8	1.12	1.9	5.0	0.26	1.02	62.9	129	0.69	0.084	0.078	25.4	0.78	9553	37811	812	216	D	U	0.0115	244.1	2.08	5043	8.6	95.6	0.82	30	12.7	1.7	0.01	1	14.3	0.1	0.00
105	122	19936	6.4	6.0	6.6	8.4	9.1	1.14	1.9	5.2	0.26	1.07	64.1	127	0.71	0.084	0.078	25.3	0.80	9484	37811	804	214	D	U	0.0128	255.7	2.09	5579	8.7	112.7	0.92	57	12.7	3.2	0.03	2	14.4	0.2	0.00
110	127	18788	6.6	6.3	6.7	8.6	9.3	1.17	2.0	5.4	0.26	1.12	65.2	126	0.73	0.085	0.079	25.3	0.81	9404	37811	795	211	D	U	0.0142	266.5	2.09	6031	8.8	129.7	1.02	99	12.8	5.7	0.04	7	14.4	0.4	0.00
115	132	17716	6.9	6.5	6.8	8.7	9.4	1.20	2.0	5.5	0.26	1.17	66.0	124	0.75	0.086	0.080	25.2	0.81	9317	37811	785	208	D	U	0.0156	276.5	2.09	6399	8.9	146.3	1.11	156	12.9	9.2	0.07	13	14.5	0.9	0.01
120	137	16718	7.1	6.7	7.0	8.9	9.6	1.22	2.1	5.7	0.26	1.23	66.8	123	0.77	0.087	0.080	25.0	0.82	9223	37811	774	205	D	U	0.0171	285.7	2.08	6686	9.1	162.3	1.18	231	12.9	13.9	0.10	24	14.5	1.6	0.01
125	142	15788	7.4	6.9	7.1	9.1	9.8	1.25	2.1	5.8	0.26	1.28	67.3	121	0.80	0.088	0.081	24.8	0.82	9125	37811	763	202	D	U	0.0186	294.2	2.07	6900	9.2	177.5	1.25	323	13.0	19.9	0.14	41	14.6	2.9	0.02
130	147	14921	7.6	7.2	7.2	9.2	10.0	1.27	2.1	5.9	0.26	1.33	67.8	120	0.82	0.089	0.082	24.6	0.83	9024	37811	751	199	D	U	0.0202	301.9	2.05	7046	9.3	191.8	1.30	433	13.1	27.2	0.18	66	14.7	4.6	0.03
135	152	14115	7.8	7.4	7.3	9.4	10.1	1.30	2.2	6.0	0.26	1.39	68.2	119	0.84	0.090	0.083	24.3	0.83	8920	37811	739	196	D	U	0.0219	308.9	2.03	7133	9.5	205.2	1.35	555	13.1	35.7	0.23	99	14.7	7.1	0.05
140	157	13363	8.1	7.6	7.5	9.5	10.3	1.32	2.2	6.1	0.26	1.45	68.4	117	0.87	0.091	0.084	24.1	0.83	8815	37811	726	193	D	U	0.0236	315.2	2.00	7361	9.6	219.2	1.39	691	13.2	45.3	0.29	142	14.8	10.3	0.07
145	162	12663	8.3	7.8	7.6	9.6	10.4	1.35	2.3	6.3	0.26	1.50	68.6	116	0.89	0.092	0.085	23.8	0.82	8709	37811	714	190	D	U	0.0253	321.0	1.98	7338	9.7	230.6	1.42	833	13.3	55.8	0.34	193	14.8	14.4	0.09
150	167	12011	8.5	8.0	7.7	9.8	10.6	1.37	2.3	6.4	0.26	1.56	68.7	115	0.91	0.093	0.086	23.5	0.82	8602	37811	702	187	D	U	0.0272	326.2	1.95	7282	9.9	241.0	1.44	978	13.4	66.9	0.40	253	14.9	19.2	0.11
155	172	11403	8.8	8.3	7.8	9.9	10.7	1.40	2.4	6.5	0.26	1.62	68.7	114	0.94	0.095	0.088	23.2	0.82	8497	37811	689	185	D	U	0.0290	330.8	1.92	7198	10.0	250.6	1.45	1127	13.5	78.6	0.46	323	15.0	24.9	0.14
160	177	10836	9.0	8.5	7.9	10.0	10.8	1.42	2.4	6.5	0.26	1.68	68.7	112	0.96	0.096	0.089	22.9	0.81	8392	37811	677	182	D	U	0.0309	334.9	1.89	7091	10.2	259.4	1.46	1273	13.6	90.6	0.51	399	15.1	31.4	0.18
165	182	10307	9.2	8.7	8.0	10.1	10.9	1.45	2.4	6.6	0.26	1.74	68.7	111	0.98	0.097	0.090	22.6	0.81	8288	37811	665	179	D	U	0.0328	338.5	1.86	6965	10.3	267.4	1.47	1414	13.6	102.8	0.56	481	15.1	38.5	0.21
170	187	9812	9.4	8.9	8.0	10.2	11.1	1.47	2.5	6.7	0.26	1.80	68.5	110	1.01	0.099	0.091	22.3	0.80	8185	37811	653	176	D	U	0.0348	341.8	1.82	6826	10.5	274.6	1.47	1549	13.7	114.9	0.61	567	15.2	46.3	0.25
175	192	9350	9.7	9.1	8.1	10.3	11.2	1.49	2.5	6.8	0.26	1.86	68.4	109	1.03	0.100	0.093	22.0	0.80	8084	37811	642	174	D	U	0.0369	344.6	1.79	6677	10.6	281.1	1.46	1677	13.8	126.9	0.66	656	15.3	54.5	0.28
180	197	8917	9.9	9.3	8.2	10.4	11.3	1.52	2.6	6.8	0.27	1.92	68.2	108	1.06	0.102	0.094	21.7	0.79	7984	37811	630	171	D	U	0.0389	347.0	1.76	6521	10.8	287.0	1.45	1795	13.9	138.6	0.70	747	15.4	63.2	0.32

SI = 6 m   Initial Density = 80000 stems/ha

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
5	22	79701	0.2	0.2	1.3	1.7	1.8	0.65	0.9	0.5	0.64	0.33	0.2	1E3	0.35	0.203	0.194	0.4	0.00	8403	58396	285	267	D	U	0.0000	0.1	0.00	.	0.0	0.0	0.00	.	0.0	0.0	0.00	.	0.0	0.0	0.00
10	27	78902	0.6	0.6	1.7	2.2	2.4	0.66	0.9	0.7	0.56	0.35	2.6	339	0.36	0.159	0.151	3.2	0.04	9135	58396	386	273	D	U	0.0000	2.3	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	32	77588	1.0	1.0	2.0	2.7	2.9	0.68	1.0	1.0	0.50	0.36	6.5	244	0.36	0.132	0.124	6.4	0.09	9807	58396	490	281	D	U	0.0001	6.9	0.21	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	37	75785	1.4	1.3	2.4	3.2	3.4	0.70	1.0	1.2	0.45	0.38	11.4	208	0.36	0.114	0.107	9.7	0.15	10440	58396	591	290	D	U	0.0002	14.3	0.38	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	42	73544	1.7	1.6	2.7	3.6	3.9	0.72	1.1	1.5	0.41	0.40	16.9	189	0.37	0.101	0.095	12.9	0.22	11022	58396	685	298	D	U	0.0003	24.6	0.58	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	47	70933	2.0	1.9	3.0	4.1	4.4	0.74	1.1	1.8	0.38	0.43	22.8	178	0.38	0.092	0.086	16.0	0.30	11540	58396	771	305	D	U	0.0005	37.6	0.80	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	52	68032	2.3	2.2	3.3	4.5	4.8	0.76	1.2	2.1	0.35	0.46	28.8	170	0.38	0.086	0.080	18.9	0.37	11986	58396	847	310	D	U	0.0008	53.1	1.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	57	64924	2.6	2.4	3.6	4.9	5.2	0.78	1.2	2.4	0.33	0.48	34.7	165	0.39	0.081	0.075	21.5	0.45	12357	58396	912	314	D	U	0.0011	70.5	1.23	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	62	61688	2.9	2.7	3.9	5.2	5.6	0.80	1.2	2.6	0.31	0.51	40.4	160	0.40	0.077	0.072	23.8	0.52	12653	58396	966	317	D	U	0.0014	89.3	1.43	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
50	67	58396	3.2	3.0	4.1	5.6	6.0	0.83	1.3	2.9	0.30	0.55	45.9	157	0.41	0.074	0.069	25.8	0.59	12878	58396	1E3	319	D	U	0.0019	109.2	1.62	2	7.8	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
55	72	55110	3.4	3.2	4.4	5.9	6.4	0.85	1.3	3.2	0.29	0.58	50.9	153	0.43	0.072	0.067	27.5	0.66	13036	58396	1E3	319	D	U	0.0024	129.7	1.79	16	7.8	0.2	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
60	77	51881	3.7	3.5	4.6	6.2	6.7	0.87	1.3	3.4	0.28	0.61	55.6	151	0.44	0.071	0.066	28.9	0.72	13135	58396	1E3	318	D	U	0.0029	150.3	1.94	68	7.9	0.8	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
65	82	48748	4.0	3.7	4.8	6.5	7.0	0.90	1.4	3.6	0.27	0.65	59.8	148	0.45	0.070	0.065	30.1	0.77	13181	58396	1E3	316	D	U	0.0035	170.8	2.08	241	7.8	2.7	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
70	87	45739	4.2	3.9	5.0	6.8	7.3	0.92	1.4	3.9	0.26	0.68	63.6	146	0.47	0.069	0.064	31.0	0.82	13182	58396	1E3	313	D	U	0.0042	190.8	2.19	527	7.9	6.4	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00
75	92	42875	4.5	4.2	5.2	7.0	7.6	0.95	1.5	4.1	0.26	0.72	66.9	143	0.48	0.069	0.063	31.7	0.86	13145	58396	1E3	310	D	U	0.0049	210.1	2.28	965	8.0	12.6	0.14	0	0.0	0.0	0.00	0	0.0	0.0	0.00
80	97	40166	4.7	4.4	5.4	7.3	7.9	0.97	1.5	4.3	0.25	0.76	69.9	141	0.50	0.069	0.063	32.2	0.90	13075	58396	1E3	306	D	U	0.0057	228.7	2.35	1761	8.0	23.4	0.24	0	0.0	0.0	0.00	0	0.0	0.0	0.00
85	102	37620	5.0	4.6	5.6	7.5	8.1	0.99	1.5	4.5	0.25	0.80	72.4	139	0.52	0.069	0.063	32.5	0.93	12979	58396	1E3	302	D	U	0.0065	246.3	2.41	2516	8.1	35.8	0.35	0	0.0	0.0	0.00	0	0.0	0.0	0.00
90	107	35235	5.2	4.9	5.7	7.7	8.4	1.02	1.6	4.7	0.25	0.84	74.6	138	0.53	0.069	0.064	32.8	0.96	12861	58396	1E3	297	D	U	0.0075	262.9	2.45	3339	8.2	50.6	0.47	1	12.5	0.1	0.00	0	0.0	0.0	0.00
95	112	33010	5.4	5.1	5.9	7.9	8.6	1.04	1.6	4.8	0.24	0.89	76.5	136	0.55	0.069	0.064	32.8	0.98	12727	58396	1E3	292	D	U	0.0084	278.5	2.48	4180	8.3	67.6	0.60	3	12.5	0.2	0.00	0	0.0	0.0	0.00
100	117	30939	5.7	5.3	6.0	8.1	8.8	1.07	1.6	5.0	0.24	0.93	78.2	134	0.57	0.070	0.064	32.8	1.00	12580	58396	1E3	287	D	U	0.0095	293.1	2.50	4996	8.4	86.0	0.73	8	12.6	0.5	0.00	0	0.0	0.0	0.00
105	122	29016	5.9	5.5	6.2	8.3	9.1	1.09	1.7	5.2	0.24	0.97	79.5	132	0.59	0.071	0.065	32.7	1.01	12423	58396	1E3	282	D	U	0.0106	306.6	2.51	5758	8.5	105.3	0.86	19	12.6	1.1	0.01	0	0.0	0.0	0.00
110	127	27232	6.1	5.8	6.3	8.5	9.3	1.12	1.7	5.3	0.24	1.02	80.6	131	0.61	0.071	0.065	32.5	1.02	12259	58396	1E3	277	D	U	0.0117	319.1	2.51	6441	8.6	125.1	0.98	39	12.7	2.2	0.02	1	14.3	0.1	0.00
115	132	25578	6.4	6.0	6.5	8.7	9.4	1.14	1.8	5.5	0.24	1.06	81.5	129	0.63	0.072	0.066	32.3	1.03	12090	58396	1E3	272	D	U	0.0129	330.6	2.50	7034	8.7	144.8	1.09	70	12.7	4.0	0.03	3	14.4	0.2	0.00
120	137	24047	6.6	6.2	6.6	8.8	9.6	1.16	1.8	5.6	0.24	1.11	82.3	128	0.64	0.073	0.067	32.0	1.03	11918	58396	1E3	267	D	U	0.0142	341.1	2.48	7532	8.8	164.1	1.20	116	12.8	6.8	0.05	7	14.4	0.5	0.00
125	142	22629	6.8	6.4	6.7	9.0	9.8	1.19	1.8	5.7	0.24	1.16	82.8	126	0.66	0.074	0.068	31.7	1.03	11745	58396	991	263	D	U	0.0155	350.8	2.47	7936	8.9	182.8	1.28	180	12.8	10.8	0.08	14	14.5	1.0	0.01
130	147	21316	7.1	6.6	6.8	9.1	10.0	1.21	1.9	5.9	0.24	1.21	83.2	125	0.68	0.075	0.069	31.3	1.03	11572	58396	973	258	D	U	0.0169	359.5	2.44	8577	9.0	203.4	1.38	262	12.9	16.0	0.11	27	14.5	1.8	0.01
135	152	20100	7.3	6.8	6.9	9.3	10.1	1.24	1.9	6.0	0.24	1.26	83.5	123	0.71	0.076	0.070	31.0	1.03	11399	58396	955	253	D	U	0.0183	367.5	2.41	8787	9.1	220.1	1.45	362	13.0	22.6	0.15	44	14.6	3.1	0.02
140	157	18972	7.5	7.1	7.0	9.4	10.3	1.26	2.0	6.1	0.24	1.31	83.7	122	0.73	0.077	0.071	30.6	1.03	11228	58396	936	248	D	U	0.0198	374.7	2.38	8921	9.2	235.8	1.50	480	13.0	30.5	0.19	69	14.6	4.9	0.03
145	162	17927	7.7	7.3	7.1	9.5	10.4	1.28	2.0	6.2	0.24	1.36	83.8	120	0.75	0.078	0.072	30.2	1.03	11059	58396	918	244	D	U	0.0213	381.2	2.35	8992	9.4	250.4	1.54	612	13.1	39.7	0.24	102	14.7	7.4	0.05
150	167	16958	7.9	7.5	7.2	9.7	10.6	1.31	2.0	6.3	0.24	1.41	83.8	119	0.77	0.080	0.073	29.8	1.02	10893	58396	901	239	D	U	0.0228	387.0	2.31	9007	9.5	263.9	1.58	757	13.2	50.0	0.30	145	14.8	10.7	0.06
155	172	16058	8.1	7.7	7.3	9.8	10.7	1.33	2.1	6.4	0.24	1.46	83.8	118	0.79	0.081	0.074	29.3	1.02	10730	58396	883	235	D	U	0.0244	392.2	2.28	8976	9.6	276.4	1.60	913	13.3	61.4	0.36	199	14.8	14.9	0.09
160	177	15221	8.4	7.9	7.4	9.9	10.8	1.35	2.1	6.5	0.24	1.52	83.6	117	0.81	0.082	0.075	28.9	1.01	10570	58396	866	231	D	U	0.0261	396.9	2.24	8905	9.8	287.9	1.62	1073	13.3	73.5	0.41	261	14.9	19.9	0.11
165	182	14443	8.6	8.1	7.5	10.0	10.9	1.38	2.2	6.6	0.24	1.57	83.4	115	0.83	0.083	0.076	28.5	1.00	10414	58396	849	227	D	U	0.0278	400.9	2.20	8803	9.9	298.3	1.64	1237	13.4	86.2	0.47	333	14.9	25.7	0.14
170	187	13719	8.8	8.3	7.6	10.1	11.1	1.40	2.2	6.7	0.24	1.63	83.2	114	0.85	0.085	0.077	28.1	0.99	10261	58396	832	223	D	U	0.0295	404.5	2.16	8673	10.0	307.9	1.64	1399	13.5	99.3	0.53	412	15.0	32.4	0.17
175	192	13044	9.0	8.5	7.6	10.2	11.2	1.42	2.2	6.7	0.24	1.68	82.9	113	0.88	0.086	0.078	27.7	0.99	10113	58396	816	219	D	U	0.0312	407.6	2.12	8524	10.2	316.5	1.65	1557	13.6	112.7	0.59	497	15.1	39.8	0.21
180	197	12415	9.2	8.7	7.7	10.3	11.3	1.45	2.3	6.8	0.24	1.74	82.6	112	0.90	0.087	0.080	27.2	0.98	9968	58396	800	216	D	U	0.0330	410.3	2.08	8361	10.3	324.4	1.64	1713	13.7	126.0	0.64	590	15.1	47.9	0.24

Table A10. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 8 m Initial Density = 800 stems/ha																																								
5	18	800	1.6	1.5	1.9	2.0	2.0	0.71	1.6	0.2	0.90	0.40	0.2	144	3.54	1.749	1.725	0.1	0.00	107	770	7	3	V	F	0.0003	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	23	798	3.0	2.8	2.6	2.8	2.8	0.81	2.2	0.4	0.85	0.52	0.5	108	3.54	1.275	1.256	0.3	0.00	157	770	13	4	V	F	0.0009	0.7	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	28	797	4.1	3.9	3.3	3.5	3.6	0.92	2.7	0.7	0.80	0.67	1.1	99	3.54	1.006	0.989	0.5	0.01	216	770	19	5	A	F	0.0024	1.9	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	33	794	5.2	4.9	4.0	4.2	4.3	1.02	3.2	1.0	0.75	0.85	1.7	95	3.55	0.836	0.822	0.7	0.02	282	770	25	7	A	F	0.0047	3.7	0.11	23	9.3	0.3	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	38	792	6.2	5.8	4.7	4.9	5.0	1.12	3.6	1.4	0.71	1.03	2.4	94	3.55	0.720	0.707	1.0	0.02	351	770	31	8	A	F	0.0078	6.2	0.16	117	9.3	1.8	0.05	2	12.5	0.1	0.00	0	0.0	0.0	0.00
30	43	788	7.1	6.6	5.3	5.6	5.7	1.21	3.9	1.8	0.68	1.22	3.1	93	3.56	0.637	0.626	1.2	0.03	423	770	36	10	A	F	0.0118	9.3	0.22	242	9.5	4.6	0.11	11	13.1	0.4	0.01	2	14.2	0.1	0.00
35	48	784	7.9	7.4	5.9	6.2	6.3	1.30	4.2	2.2	0.65	1.41	3.9	93	3.57	0.575	0.565	1.4	0.04	495	770	41	11	A	F	0.0165	12.9	0.27	354	9.9	8.1	0.17	35	13.3	1.6	0.03	7	14.9	0.3	0.01
40	53	780	8.7	8.2	6.4	6.8	6.9	1.39	4.4	2.6	0.62	1.60	4.6	93	3.58	0.527	0.517	1.6	0.05	568	770	47	12	A	F	0.0218	17.0	0.32	441	10.2	12.2	0.23	73	13.6	3.7	0.07	21	15.1	1.2	0.02
45	58	775	9.4	8.9	7.0	7.3	7.5	1.47	4.6	3.0	0.60	1.79	5.4	92	3.59	0.489	0.480	1.8	0.05	640	770	51	14	A	F	0.0276	21.4	0.37	506	10.7	16.7	0.29	120	13.8	6.9	0.12	44	15.3	2.8	0.05
50	63	770	10.1	9.5	7.5	7.9	8.0	1.54	4.8	3.4	0.58	1.98	6.2	92	3.60	0.459	0.450	1.9	0.06	711	770	56	15	A	F	0.0340	26.2	0.42	553	11.1	21.5	0.34	170	14.1	10.8	0.17	75	15.5	5.2	0.08
55	68	764	10.7	10.1	8.0	8.3	8.5	1.61	4.9	3.7	0.56	2.17	6.9	92	3.62	0.434	0.426	2.1	0.07	781	770	60	17	A	F	0.0407	31.1	0.46	588	11.5	26.4	0.39	220	14.4	15.4	0.23	110	15.8	8.4	0.12
60	73	758	11.3	10.7	8.4	8.8	8.9	1.68	5.0	4.1	0.55	2.36	7.6	91	3.63	0.413	0.406	2.3	0.08	848	770	64	18	A	F	0.0478	36.2	0.50	613	11.9	31.5	0.43	266	14.7	20.4	0.28	148	16.0	12.2	0.17
65	78	751	11.9	11.3	8.8	9.2	9.4	1.74	5.2	4.4	0.53	2.54	8.4	91	3.65	0.396	0.389	2.4	0.09	913	770	68	19	A	F	0.0550	41.3	0.53	630	12.4	36.7	0.47	308	15.0	25.7	0.33	186	16.2	16.6	0.21
70	83	745	12.4	11.8	9.2	9.6	9.8	1.80	5.3	4.7	0.52	2.72	9.1	90	3.66	0.381	0.374	2.6	0.09	976	770	72	20	A	F	0.0624	46.5	0.56	643	12.8	42.0	0.51	346	15.2	31.2	0.38	222	16.5	21.3	0.26
75	88	738	13.0	12.3	9.6	10.0	10.2	1.86	5.4	5.0	0.51	2.90	9.7	90	3.68	0.368	0.362	2.7	0.10	1037	770	75	21	A	F	0.0701	51.7	0.59	651	13.2	47.2	0.54	379	15.5	36.7	0.42	256	16.7	26.4	0.30
80	93	730	13.4	12.8	10.0	10.4	10.5	1.92	5.4	5.3	0.50	3.08	10.4	90	3.70	0.358	0.352	2.8	0.11	1095	770	78	22	A	F	0.0778	56.8	0.61	655	13.6	52.3	0.56	406	15.8	42.1	0.45	287	17.0	31.5	0.34
85	98	723	13.9	13.2	10.3	10.7	10.9	1.97	5.5	5.5	0.49	3.25	11.0	89	3.72	0.348	0.343	2.9	0.11	1151	770	81	23	A	F	0.0856	61.9	0.63	659	14.0	57.4	0.59	430	16.1	47.5	0.48	315	17.2	36.7	0.37
90	103	715	14.4	13.7	10.6	11.0	11.2	2.02	5.6	5.8	0.48	3.42	11.6	89	3.74	0.340	0.335	3.1	0.12	1204	770	83	24	A	F	0.0936	66.9	0.65	659	14.3	62.3	0.60	450	16.4	52.8	0.51	340	17.4	42.0	0.41
95	108	708	14.8	14.1	10.9	11.3	11.5	2.07	5.6	6.0	0.48	3.58	12.2	88	3.76	0.333	0.328	3.2	0.13	1255	770	86	25	A	F	0.1014	71.8	0.66	659	14.7	67.3	0.62	468	16.6	58.2	0.54	363	17.7	47.3	0.44
100	113	700	15.2	14.5	11.2	11.6	11.8	2.12	5.7	6.2	0.47	3.75	12.7	87	3.78	0.326	0.322	3.3	0.13	1304	770	88	26	A	F	0.1094	76.6	0.68	657	15.1	72.0	0.64	482	16.9	63.2	0.56	382	17.9	52.4	0.46
105	118	692	15.6	14.9	11.4	11.8	12.0	2.16	5.8	6.4	0.47	3.91	13.2	87	3.80	0.321	0.316	3.4	0.14	1350	770	90	27	A	F	0.1173	81.2	0.69	654	15.4	76.6	0.65	493	17.2	68.1	0.58	399	18.1	57.4	0.49
110	123	684	16.0	15.2	11.7	12.1	12.3	2.21	5.8	6.6	0.46	4.07	13.7	86	3.82	0.316	0.312	3.4	0.14	1395	770	92	28	A	F	0.1253	85.7	0.70	650	15.7	81.1	0.66	502	17.4	72.8	0.59	414	18.4	62.3	0.51
115	128	675	16.4	15.6	11.9	12.3	12.5	2.25	5.9	6.7	0.46	4.22	14.2	86	3.85	0.312	0.308	3.5	0.15	1437	770	94	29	A	F	0.1330	89.8	0.70	645	16.1	85.3	0.67	509	17.7	77.3	0.60	426	18.6	67.0	0.52
120	133	667	16.7	16.0	12.2	12.6	12.7	2.29	5.9	6.9	0.46	4.38	14.7	85	3.87	0.308	0.304	3.6	0.15	1477	770	96	29	A	F	0.1409	94.0	0.71	640	16.4	89.5	0.67	515	17.9	81.7	0.61	436	18.8	71.5	0.54
125	138	659	17.1	16.3	12.4	12.8	13.0	2.33	6.0	7.0	0.45	4.53	15.1	85	3.90	0.305	0.301	3.7	0.16	1516	770	97	30	A	F	0.1487	98.0	0.71	635	16.7	93.5	0.68	519	18.2	85.9	0.62	445	19.1	76.0	0.55
130	143	651	17.4	16.6	12.6	13.0	13.2	2.37	6.0	7.2	0.45	4.68	15.5	84	3.92	0.302	0.298	3.7	0.16	1552	770	99	30	B	F	0.1565	101.9	0.71	629	17.0	97.3	0.68	523	18.4	90.0	0.63	453	19.3	80.2	0.56
135	148	643	17.8	17.0	12.8	13.2	13.3	2.40	6.0	7.3	0.45	4.83	15.9	83	3.94	0.299	0.295	3.8	0.17	1587	770	100	31	B	F	0.1641	105.5	0.71	623	17.3	101.0	0.68	525	18.7	93.8	0.63	459	19.5	84.3	0.57
140	153	635	18.1	17.3	13.0	13.4	13.5	2.44	6.1	7.4	0.44	4.98	16.3	83	3.97	0.297	0.293	3.8	0.17	1621	770	101	32	B	F	0.1718	109.1	0.71	617	17.6	104.5	0.68	526	18.9	97.5	0.64	464	19.7	88.3	0.58
145	158	627	18.4	17.6	13.2	13.5	13.7	2.48	6.1	7.5	0.44	5.12	16.7	82	3.99	0.295	0.291	3.9	0.17	1652	770	103	32	B	F	0.1793	112.4	0.71	611	17.9	107.8	0.68	526	19.2	101.0	0.64	468	19.9	92.0	0.58
150	163	619	18.7	17.9	13.3	13.7	13.9	2.51	6.2	7.6	0.44	5.27	17.0	81	4.02	0.293	0.290	3.9	0.18	1683	770	104	33	B	F	0.1868	115.6	0.71	604	18.2	111.0	0.68	525	19.4	104.3	0.64	471	20.2	95.6	0.59
155	168	611	19.0	18.2	13.5	13.9	14.0	2.55	6.2	7.7	0.44	5.41	17.4	81	4.05	0.292	0.288	4.0	0.18	1712	770	104	33	B	F	0.1941	118.6	0.71	597	18.5	114.0	0.68	524	19.7	107.5	0.64	473	20.4	99.0	0.59
160	173	603	19.3	18.5	13.7	14.0	14.2	2.58	6.2	7.8	0.44	5.55	17.7	80	4.07	0.290	0.287	4.0	0.18	1740	770	105	33	B	F	0.2013	121.4	0.70	590	18.8	116.9	0.68	522	19.9	110.4	0.64	474	20.6	102.1	0.59
165	178	596	19.6	18.8	13.8	14.2	14.3	2.61	6.3	7.9	0.44	5.69	18.0	80	4.10	0.289	0.286	4.1	0.19	1766	770	106	34	B	F	0.2086	124.3	0.70	584	19.0	119.7	0.67	521	20.1	113.4	0.64	475	20.8	105.3	0.59
170	183	588	19.9	19.1	14.0	14.3	14.5	2.64	6.3	7.9	0.44	5.83	18.3	79	4.12	0.288	0.285	4.1	0.19	1792	770	107	34	B	F	0.2158	126.9	0.69	577	19.3	122.3	0.67	518	20.4	116.1	0.63	475	21.0	108.2	0.59
175	188	581	20.2	19.3	14.1	14.4	14.6	2.68	6.3	8.0	0.44	5.97	18.6	78	4.15	0.287	0.284	4.1	0.19	1816	770	108	35	B	F	0.2229	129.5	0.69	571	19.6	124.9	0.66	516	20.6	118.7	0.63	475	21.2	111.1	0.59
180	193	574	20.5	19.6	14.2	14.6	14.7	2.71	6.4	8.1	0.43	6.11	18.9	78	4.17	0.286	0.283	4.2	0.19	1839	770	108	35	B	F	0.2298	131.9	0.68	565	19.8	127.3	0.66	513	20.8	121.2	0.63	475	21.4	113.8	0.59
SI = 8 m Initial Density = 1000 stems/ha																																								
5	18	999	1.5	1.4	1.9	2.0	2.0	0.71	1.6	0.2	0.89	0.39	0.2	151	3.16	1.566	1.544	0.1	0.00	133	947	8	4	V	F	0.0002	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	23	997	2.8	2.6	2.6	2.8	2.8	0.80	2.1	0.4	0.83	0.51	0.6	112	3.17	1.142	1.123	0.4	0.01	191	947	15	5	A	F	0.0008	0.8	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	28	994	3.9	3.7	3.3	3.5	3.6	0.90	2.6	0.7	0.78	0.65	1.2	102	3.17	0.902	0.886	0.6	0.01	258	947	22	6	A	F	0.0021	2.1	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	33	990	5.0	4.6	4.0	4.2	4.3	0.99	3.1	1.0	0.74	0.80	1.9	98	3.18	0.750	0.736	0.9	0.02	333	947	29	8	A	F	0.0042	4.2	0.13	17	9.2	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	38	985	5.9	5.5	4.6	4.9	5.0	1.09	3.4	1.4	0.70	0.97	2.7	97	3.19	0.646	0.634	1.1	0.03	412	947	36	10	A	F	0.0071	7.0	0.18	111	9.2	1.7	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	43	979	6.8	6.3	5.2	5.6	5.7	1.18	3.7	1.8	0.66	1.15	3.5	96	3.20	0.572	0.561	1.4	0.03	493	947	42	11	A	F	0.0106	10.4	0.24	254	9.4	4.5	0.10	8	12.9	0.3	0.01	0	0.0	0.0	0.00
35	48	972	7.6	7.1	5.8	6.2	6.3	1.27	4.0	2.2	0.63	1.32	4.4	95	3.21	0.517	0.507	1.6	0.04	576	947	48	13	A	F	0.0149	14.5	0.30	392	9.6	8.4	0.17	28	13.2	1.2	0.02	5	14.7	0.2	0.00
40	53	965	8.3	7.8	6.4	6.8	6.9	1.35	4.2	2.7	0.60	1.50	5.2	95	3.22	0.474	0.465	1.8	0.05	658	947	54	15	A	F	0.0197	19.0	0.36	503	10.0	13.0	0.25	64	13.4	3.2	0.06	16	15.0	0.9	0.02
45	58	956	9.0	8.5	6.9	7.3	7.5	1.42	4.4	3.1	0.58	1.68	6.1	95	3.23	0.441	0.433	2.0	0.06	739	947	60	16	A	F	0.0250	23.9	0.41	587	10.4	18.0	0.31	113	13.7	6.3	0.11	36	15.2	2.2	0.04
50	63	947	9.7	9.1	7.4	7.8	8.0	1.50	4.5	3.4	0.56	1.86	6.9	94	3.25	0.414	0.406	2.2	0.07	818	947	65	18	A	F	0.0308	29.2	0.46	649	10.8	23.3	0.37	169	13.9	10.4	0.17	66	15.4	4.4	0.07
55	68	938	10.3	9.7	7.9	8.3	8.5	1.56	4.7	3.8	0.54	2.04	7.8	94	3.27	0.392	0.385	2.4	0.08	895	947	70	19	A	F	0.0370	34.7	0.51	695	11.2	28.9	0.42	226	14.2	15.3	0.22	103	15.6	7.6	0.11
60	73	927	10.9	10.3	8.4	8.8	8.9	1.63	4.8	4.2	0.53	2.22	8.6	94	3.28	0.374	0.367	2.6	0.09	969	947	74	21	A	F	0.0435	40.3	0.55	727	11.6	34.6	0.47	281	14.4	20.7	0.28	144	15.8	11.5	0.16
65	78	916	11.4	10.8	8.8	9.2	9.4	1.69	4.9	4.5	0.51	2.39	9.4	93	3.30	0.359	0.352	2.8	0.10	1041	947	79	22	A	F	0.0502	46.0	0.59	749	12.0	40.3	0.52	332	14.7	26.5	0.34	186	16.0	16.0	0.21
70	83	905	12.0	11.3	9.2	9.6	9.8	1.75	5.0	4.8	0.50	2.56	10.2	93	3.32	0.346	0.340	2.9	0.11	1109	947	83	23	A	F	0.0571	51.7	0.62	765	12.4	46.1	0.56	378	15.0	32.5	0.39	228	16.2	21.1	0.25
75	88	893	12.5	11.8	9.5	10.0	10.2	1.81	5.1	5.1	0.49	2.73	10.9	92	3.35	0.335	0.329	3.1	0.11	1175	947	86	24	A	F	0.0643	57.4	0.65	774	12.8	51.9	0.59	418	15.2	38.6	0.44	268	16.5	26.5	0.30
80	93	882	12.9	12.3	9.9	10.3	10.5	1.86	5.2	5.4	0.48	2.90	11.6	92	3.37	0.326	0.320	3.2	0.12	1237	947	89	26	A	F	0.0715	63.1	0.68	780	13.2	57.6	0.62	453	15.5	44.8	0.48	306	16.7	32.1	0.35
85	98	869	13.4	12.7	10.2	10.7	10.9	1.91	5.3	5.6	0.48	3.06	12.3	91	3.39	0.318	0.312	3.3	0.13	1297	947	92	27	A	F	0.0789	68.6	0.70	782	13.5	63.1	0.64	483	15.7	50.8	0.52	339	16.9	37.8	0.39
90	103	857	13.8	13.2	10.5	11.0	11.2	1.96	5.3	5.9	0.47	3.23	12.9	91	3.42	0.311	0.306	3.5	0.14	1353	947	95	28	A	F	0.0863	74.0	0.72	781	13.9	68.6	0.67	508	16.0	56.7	0.55	370	17.1	43.6	0.42
95	108	844	14.3	13.6	10.8	11.3	11.5	2.01	5.4	6.1	0.46	3.39	13.5	90	3.44	0.305	0.300	3.6	0.14	1406	947	98	29	A	F	0.0938	79.2	0.73	778	14.3	73.9	0.68	528	16.3	62.4	0.58	397	17.4	49.3	0.46
100	113	832	14.7	14.0	11.1	11.6	11.8	2.06	5.5	6.3	0.46	3.55	14.1	89	3.47	0.300	0.295	3.7	0.15	1457	947	100	29	A	F	0.1014	84.4	0.75	774	14.6	79.0	0.70	546	16.5	68.1	0.60	421	17.6	55.0	0.49
105	118	819	15.1	14.4	11.4	11.8	12.0	2.10	5.5	6.5	0.45	3.70	14.7	89	3.49	0.296	0.291	3.8	0.16	1505	947	102	30	B	F	0.1090	89.3	0.76	768	15.0	84.0	0.71	559	16.8	73.4	0.62	441	17.8	60.5	0.51
110	123	806	15.5	14.8	11.6	12.1	12.3	2.15	5.6	6.7	0.45	3.86	15.2	88	3.52	0.292	0.287	3.9	0.16	1550	947	104	31	B	F	0.1166	94.0	0.76	761	15.3	88.7	0.72	570	17.1	78.6	0.64	458	18.0	65.8	0.53
115	128	793	15.9	15.1	11.9	12.3	12.5	2.19	5.6	6.8	0.44	4.01	15.7	87	3.55	0.288	0.284	3.9	0.17	1592	947	106	32	B	F	0.1242	98.5	0.77	753	15.6	93.2	0.73	578	17.3	83.5	0.65	473	18.3	71.0	0.55
120	133	781	16.2	15.5	12.1	12.5	12.7	2.23	5.7	7.0	0.44	4.16	16.1	87	3.58	0.285	0.281	4.0	0.17	1632	947	108	33	B	F	0.1318	102.9	0.77	745	16.0	97.7	0.73	585	17.6	88.3	0.66	486	18.5	76.1	0.57
125	138	768	16.6	15.8	12.3	12.8	13.0	2.27	5.7	7.2	0.44	4.31	16.6	86	3.61	0.283	0.279	4.1	0.18	1670	947	109	33	B	F	0.1393	107.0	0.78	736	16.3	101.8	0.74	589	17.8	92.8	0.67	496	18.7	80.8	0.59
130	143	756	16.9	16.2	12.5	13.0	13.2	2.31	5.8	7.3	0.44	4.46	17.0	86	3.64	0.281	0.276	4.1	0.18	1706	947	110	34	B	F	0.1468	111.0	0.78	727	16.6	105.8	0.74	592	18.1	97.1	0.68	505	18.9	85.5	0.60
135	148	744	17.3	16.5	12.7	13.2	13.3	2.35	5.8	7.4	0.43	4.61	17.4	85	3.67	0.279	0.275	4.2	0.18	1740	947	112	34	B	F	0.1544	114.9	0.78	718	16.9	109.7	0.74	594	18.3	101.2	0.68	512	19.2	89.9	0.61
140	153	731	17.6	16.8	12.9	13.3	13.5	2.39	5.9	7.5	0.43	4.76	17.8	84	3.70	0.277	0.273	4.2	0.19	1772	947	112	35	B	F	0.1618	118.3	0.77	708	17.2	113.1	0.74	593	18.6	104.9	0.69	517	19.4	94.0	0.61
145	158	719	17.9	17.1	13.1	13.5	13.7	2.42	5.9	7.6	0.43	4.90	18.1	84	3.73	0.276	0.272	4.3	0.19	1802	947	113	35	B	F	0.1693	121.7	0.77	698	17.5	116.5	0.74	592	18.8	108.6	0.69	521	19.6	98.0	0.62
150	163	708	18.2	17.4	13.3	13.7	13.9	2.46	5.9	7.7	0.43	5.05	18.5	83	3.76	0.275	0.271	4.3	0.19	1831	947	114	36	B	F	0.1766	125.0	0.77	689	17.8	119.9	0.74	591	19.0	112.2	0.69	524	19.8	101.9	0.63
155	168	696	18.5	17.7	13.4	13.8	14.0	2.49	6.0	7.8	0.43	5.19	18.8	82	3.79	0.274	0.270	4.4	0.20	1858	947	115	36	B	F	0.1839	128.0	0.76	679	18.0	122.9	0.73	588	19.3	115.3	0.69	525	20.0	105.3	0.63
160	173	685	18.9	18.0	13.6	14.0	14.2	2.53	6.0	7.9	0.43	5.33	19.1	82	3.82	0.273	0.269	4.4	0.20	1883	947	116	37	B	F	0.1911	130.9	0.76	669	18.3	125.8	0.73	585	19.5	118.5	0.68	526	20.2	108.8	0.63
165	178	674	19.2	18.3	13.7	14.1	14.3	2.56	6.1	8.0	0.43	5.47	19.4	81	3.85	0.272	0.269	4.4	0.20	1907	947	116	37	B	F	0.1984	133.7	0.75	660	18.6	128.6	0.72	581	19.8	121.3	0.68	526	20.5	112.0	0.63
170	183	663	19.4	18.6	13.9	14.3	14.5	2.59	6.1	8.0	0.42	5.61	19.7	80	3.88	0.272	0.268	4.5	0.21	1931	947	117	37	B	F	0.2054	136.2	0.74	650	18.9	131.1	0.72	577	20.0	124.1	0.68	525	20.7	115.0	0.63
175	188	653	19.7	18.9	14.0	14.4	14.6	2.63	6.1	8.1	0.42	5.75	20.0	80	3.91	0.271	0.268	4.5	0.21	1952	947	117	38	B	F	0.2124	138.7	0.74	641	19.1	133.7	0.71	573	20.2	126.7	0.67	524	20.9	117.9	0.63
180	193	642	20.0	19.2	14.2	14.5	14.7	2.66	6.2	8.2	0.42	5.89	20.2	79	3.95	0.271	0.268	4.5	0.21	1973	947	118	38	B	F	0.2193	140.8	0.73	631	19.4	135.8	0.70	568	20.4	129.0	0.67	522	21.1	120.5	0.62

Table A11. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 8 m Initial Density = 1600 stems/ha																																								
5	18	1598	1.3	1.3	1.9	2.0	2.0	0.70	1.5	0.2	0.87	0.38	0.2	168	2.50	1.242	1.221	0.2	0.00	209	1456	12	6	A	F	0.0001	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	23	1592	2.5	2.3	2.6	2.8	2.8	0.77	2.0	0.4	0.81	0.48	0.8	121	2.51	0.906	0.889	0.5	0.01	286	1456	22	8	A	F	0.0006	1.0	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	28	1584	3.5	3.3	3.2	3.5	3.6	0.86	2.4	0.8	0.75	0.59	1.6	110	2.51	0.716	0.702	0.8	0.02	376	1456	31	9	A	F	0.0017	2.7	0.10	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	33	1573	4.5	4.2	3.9	4.2	4.3	0.95	2.8	1.1	0.70	0.73	2.5	105	2.52	0.597	0.584	1.2	0.02	475	1456	41	11	A	F	0.0033	5.2	0.16	8	9.0	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	38	1559	5.3	5.0	4.5	4.9	5.0	1.03	3.1	1.5	0.66	0.87	3.5	103	2.53	0.516	0.504	1.5	0.03	578	1456	50	14	A	F	0.0056	8.7	0.23	87	8.9	1.2	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	43	1542	6.1	5.7	5.2	5.6	5.7	1.11	3.4	1.9	0.62	1.02	4.5	102	2.55	0.458	0.447	1.8	0.05	683	1456	59	16	A	F	0.0085	13.1	0.30	258	9.0	4.1	0.10	3	12.6	0.1	0.00	0	0.0	0.0	0.00
35	48	1524	6.9	6.4	5.7	6.2	6.3	1.19	3.6	2.4	0.59	1.17	5.6	101	2.56	0.415	0.405	2.2	0.06	789	1456	67	18	A	F	0.0119	18.1	0.38	456	9.3	8.6	0.18	14	12.9	0.6	0.01	2	14.1	0.1	0.00
40	53	1503	7.6	7.1	6.3	6.8	6.9	1.27	3.8	2.8	0.57	1.32	6.7	101	2.58	0.382	0.373	2.5	0.07	893	1456	75	20	A	F	0.0158	23.8	0.45	634	9.5	14.1	0.27	41	13.2	2.0	0.04	7	14.7	0.4	0.01
45	58	1480	8.2	7.7	6.8	7.3	7.5	1.34	3.9	3.2	0.54	1.48	7.8	100	2.60	0.356	0.348	2.7	0.08	995	1456	82	22	A	F	0.0202	29.9	0.52	775	9.9	20.3	0.35	88	13.3	4.6	0.08	20	14.9	1.2	0.02
50	63	1456	8.8	8.3	7.3	7.8	8.0	1.40	4.1	3.6	0.52	1.64	8.9	100	2.62	0.335	0.328	3.0	0.09	1093	1456	89	24	A	F	0.0251	36.5	0.58	883	10.2	27.0	0.43	149	13.5	8.6	0.14	44	15.1	2.8	0.04
55	68	1430	9.4	8.9	7.8	8.3	8.5	1.47	4.2	4.0	0.51	1.79	9.9	99	2.64	0.319	0.311	3.2	0.11	1187	1456	95	26	A	F	0.0302	43.2	0.64	962	10.6	34.0	0.50	219	13.8	13.8	0.20	78	15.3	5.4	0.08
60	73	1403	10.0	9.4	8.2	8.7	8.9	1.53	4.3	4.3	0.49	1.95	10.9	98	2.67	0.305	0.298	3.5	0.12	1276	1456	100	27	A	F	0.0356	50.0	0.68	1017	10.9	41.1	0.56	292	14.0	19.9	0.27	122	15.4	9.1	0.12
65	78	1376	10.5	9.9	8.6	9.2	9.4	1.59	4.4	4.7	0.48	2.10	11.9	98	2.70	0.294	0.287	3.7	0.13	1360	1456	106	29	A	F	0.0414	57.0	0.73	1056	11.3	48.2	0.62	364	14.2	26.8	0.34	171	15.6	13.7	0.18
70	83	1347	11.0	10.4	9.0	9.6	9.8	1.65	4.5	5.0	0.47	2.26	12.8	97	2.72	0.285	0.278	3.9	0.14	1440	1456	110	30	B	F	0.0474	63.8	0.77	1080	11.6	55.3	0.67	430	14.4	34.0	0.41	223	15.8	19.1	0.23
75	88	1318	11.5	10.9	9.4	9.9	10.2	1.70	4.6	5.3	0.46	2.41	13.7	97	2.75	0.277	0.271	4.0	0.15	1514	1456	114	32	B	F	0.0536	70.6	0.80	1093	12.0	62.3	0.71	490	14.7	41.4	0.47	276	16.0	25.1	0.29
80	93	1289	12.0	11.3	9.7	10.3	10.5	1.75	4.7	5.5	0.45	2.57	14.5	96	2.79	0.271	0.265	4.2	0.16	1584	1456	118	33	B	F	0.0600	77.3	0.83	1098	12.4	69.1	0.74	543	14.9	48.9	0.53	327	16.2	31.6	0.34
85	98	1260	12.4	11.8	10.1	10.6	10.9	1.80	4.8	5.8	0.44	2.72	15.3	95	2.82	0.265	0.259	4.3	0.17	1648	1456	121	34	B	F	0.0664	83.7	0.85	1097	12.7	75.8	0.77	589	15.2	56.4	0.58	374	16.4	38.3	0.39
90	103	1230	12.9	12.2	10.4	10.9	11.2	1.85	4.8	6.0	0.44	2.87	16.0	95	2.85	0.261	0.255	4.5	0.17	1708	1456	124	35	B	F	0.0731	89.9	0.87	1091	13.1	82.1	0.80	627	15.4	63.6	0.62	418	16.6	45.1	0.44
95	108	1201	13.3	12.6	10.7	11.2	11.5	1.90	4.9	6.3	0.43	3.02	16.6	94	2.89	0.257	0.252	4.6	0.18	1764	1456	126	36	B	F	0.0799	95.9	0.89	1081	13.4	88.3	0.82	659	15.6	70.6	0.65	457	16.8	52.0	0.48
100	113	1172	13.7	13.0	10.9	11.5	11.8	1.95	5.0	6.5	0.43	3.17	17.3	93	2.92	0.254	0.249	4.7	0.19	1815	1456	128	37	B	F	0.0867	101.6	0.90	1068	13.8	94.2	0.83	684	15.9	77.3	0.68	492	17.0	58.8	0.52
105	118	1144	14.1	13.4	11.2	11.8	12.0	1.99	5.0	6.7	0.42	3.32	17.9	92	2.96	0.251	0.246	4.8	0.19	1862	1456	130	38	B	F	0.0937	107.2	0.91	1054	14.1	99.8	0.85	705	16.1	83.8	0.71	522	17.2	65.4	0.55
110	123	1116	14.5	13.8	11.5	12.0	12.3	2.04	5.1	6.9	0.42	3.47	18.4	92	2.99	0.249	0.244	4.8	0.20	1905	1456	132	39	B	F	0.1006	112.3	0.91	1037	14.4	105.1	0.85	720	16.4	90.0	0.73	548	17.4	71.9	0.58
115	128	1088	14.9	14.2	11.7	12.3	12.5	2.08	5.1	7.0	0.42	3.61	18.9	91	3.03	0.247	0.242	4.9	0.20	1945	1456	133	39	B	F	0.1077	117.2	0.92	1019	14.7	110.1	0.86	731	16.6	95.7	0.75	569	17.6	78.0	0.61
120	133	1062	15.2	14.5	11.9	12.5	12.7	2.12	5.2	7.2	0.41	3.76	19.4	90	3.07	0.246	0.241	5.0	0.21	1982	1456	134	40	B	F	0.1148	121.9	0.92	1001	15.1	114.9	0.86	739	16.9	101.2	0.76	587	17.9	84.0	0.63
125	138	1035	15.6	14.9	12.1	12.7	13.0	2.16	5.3	7.3	0.41	3.91	19.8	90	3.11	0.245	0.240	5.0	0.21	2016	1456	135	40	B	F	0.1219	126.2	0.91	981	15.4	119.3	0.86	743	17.1	106.3	0.77	601	18.1	89.5	0.65
130	143	1010	16.0	15.2	12.3	12.9	13.2	2.20	5.3	7.5	0.41	4.05	20.2	89	3.15	0.244	0.239	5.1	0.22	2047	1456	136	41	B	F	0.1291	130.4	0.91	962	15.7	123.6	0.86	746	17.3	111.2	0.78	613	18.3	95.0	0.66
135	148	985	16.3	15.6	12.5	13.1	13.3	2.24	5.4	7.6	0.41	4.20	20.6	88	3.19	0.243	0.239	5.1	0.22	2075	1456	137	41	B	F	0.1362	134.2	0.91	942	16.0	127.5	0.86	745	17.6	115.7	0.78	622	18.5	100.0	0.68
140	153	961	16.6	15.9	12.7	13.3	13.5	2.28	5.4	7.7	0.41	4.34	20.9	87	3.23	0.243	0.238	5.1	0.22	2101	1456	137	42	B	F	0.1434	137.8	0.90	923	16.3	131.2	0.86	743	17.8	119.9	0.78	628	18.7	104.7	0.68
145	158	938	17.0	16.2	12.9	13.5	13.7	2.32	5.5	7.8	0.41	4.49	21.2	86	3.27	0.243	0.238	5.2	0.23	2125	1456	137	42	B	F	0.1505	141.2	0.89	904	16.6	134.7	0.85	739	18.1	123.8	0.78	632	18.9	109.2	0.69
150	163	915	17.3	16.5	13.1	13.6	13.9	2.36	5.5	7.9	0.41	4.63	21.5	86	3.31	0.243	0.238	5.2	0.23	2147	1456	138	42	B	F	0.1576	144.2	0.88	885	16.9	137.8	0.85	734	18.3	127.4	0.78	634	19.2	113.4	0.70
155	168	893	17.6	16.9	13.2	13.8	14.0	2.39	5.6	8.0	0.40	4.77	21.8	85	3.35	0.243	0.238	5.2	0.23	2167	1456	138	43	B	F	0.1647	147.1	0.88	866	17.2	140.8	0.84	728	18.6	130.8	0.78	635	19.4	117.3	0.70
160	173	872	17.9	17.2	13.4	13.9	14.2	2.43	5.6	8.1	0.40	4.91	22.1	84	3.39	0.243	0.239	5.2	0.23	2186	1456	138	43	B	F	0.1718	149.8	0.87	847	17.5	143.6	0.83	721	18.8	134.0	0.77	634	19.6	120.9	0.70
165	178	852	18.3	17.5	13.5	14.1	14.3	2.46	5.7	8.1	0.40	5.05	22.3	83	3.43	0.243	0.239	5.2	0.24	2203	1456	138	43	B	F	0.1789	152.4	0.86	830	17.8	146.2	0.82	713	19.0	136.9	0.77	633	19.8	124.4	0.70
170	183	833	18.6	17.8	13.7	14.2	14.5	2.50	5.7	8.2	0.40	5.19	22.5	83	3.46	0.244	0.239	5.2	0.24	2219	1456	138	43	B	F	0.1860	154.9	0.85	813	18.1	148.7	0.81	705	19.3	139.7	0.76	631	20.0	127.7	0.70
175	188	814	18.9	18.1	13.8	14.4	14.6	2.53	5.8	8.3	0.40	5.33	22.7	82	3.50	0.244	0.240	5.2	0.24	2233	1456	138	43	B	F	0.1929	157.0	0.84	796	18.3	150.9	0.80	697	19.5	142.2	0.76	627	20.2	130.6	0.69
180	193	796	19.2	18.3	14.0	14.5	14.7	2.56	5.8	8.3	0.40	5.47	22.9	81	3.54	0.245	0.240	5.2	0.24	2247	1456	137	44	B	F	0.1997	159.0	0.82	779	18.6	153.0	0.79	688	19.7	144.5	0.75	623	20.4	133.4	0.69
SI = 8 m Initial Density = 2000 stems/ha																																								
5	18	1997	1.3	1.2	1.8	2.0	2.0	0.69	1.5	0.2	0.86	0.38	0.3	177	2.24	1.112	1.092	0.2	0.00	258	1779	15	7	A	F	0.0001	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	23	1988	2.4	2.2	2.5	2.8	2.8	0.76	1.9	0.5	0.80	0.46	0.9	126	2.24	0.812	0.796	0.6	0.01	347	1779	25	9	A	F	0.0006	1.1	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	28	1975	3.4	3.1	3.2	3.5	3.6	0.84	2.3	0.8	0.74	0.57	1.8	113	2.25	0.643	0.628	1.0	0.02	450	1779	37	11	A	F	0.0015	3.0	0.11	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	33	1958	4.3	4.0	3.9	4.2	4.3	0.93	2.7	1.2	0.69	0.69	2.8	108	2.26	0.536	0.523	1.4	0.03	562	1779	48	14	A	F	0.0030	5.8	0.18	5	8.8	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	38	1936	5.1	4.8	4.5	4.9	5.0	1.01	3.0	1.6	0.64	0.82	3.9	106	2.27	0.464	0.452	1.7	0.04	679	1779	58	16	A	F	0.0050	9.7	0.26	71	8.8	0.9	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	43	1911	5.8	5.5	5.1	5.6	5.7	1.08	3.2	2.0	0.61	0.96	5.1	105	2.29	0.412	0.402	2.1	0.05	798	1779	69	18	A	F	0.0076	14.5	0.34	247	8.9	3.8	0.09	2	12.3	0.1	0.00	0	0.0	0.0	0.00
35	48	1882	6.6	6.2	5.7	6.2	6.3	1.16	3.4	2.4	0.58	1.10	6.4	104	2.31	0.374	0.364	2.5	0.07	916	1779	78	21	A	F	0.0107	20.1	0.42	473	9.1	8.4	0.17	9	12.8	0.4	0.01	0	0.0	0.0	0.00
40	53	1851	7.2	6.8	6.2	6.7	6.9	1.23	3.6	2.9	0.55	1.25	7.6	103	2.32	0.345	0.336	2.8	0.08	1032	1779	87	23	A	F	0.0143	26.4	0.50	689	9.3	14.4	0.27	31	13.0	1.4	0.03	4	14.5	0.2	0.00
45	58	1816	7.9	7.4	6.8	7.3	7.5	1.30	3.8	3.3	0.53	1.39	8.8	103	2.35	0.322	0.314	3.1	0.09	1144	1779	95	25	A	F	0.0182	33.1	0.57	867	9.6	21.2	0.37	72	13.2	3.7	0.06	13	14.8	0.7	0.01
50	63	1779	8.5	8.0	7.2	7.8	8.0	1.36	3.9	3.7	0.51	1.54	10.0	102	2.37	0.304	0.296	3.4	0.11	1252	1779	103	27	A	F	0.0227	40.3	0.64	1005	10.0	28.6	0.45	132	13.4	7.4	0.12	33	14.9	2.0	0.03
55	68	1741	9.0	8.5	7.7	8.3	8.5	1.43	4.0	4.0	0.49	1.69	11.1	101	2.40	0.290	0.282	3.7	0.12	1354	1779	109	29	A	F	0.0274	47.7	0.70	1107	10.3	36.3	0.53	205	13.6	12.5	0.18	64	15.1	4.3	0.06
60	73	1701	9.6	9.0	8.1	8.7	8.9	1.49	4.1	4.4	0.47	1.83	12.2	101	2.42	0.278	0.271	4.0	0.13	1450	1779	115	31	B	F	0.0325	55.2	0.76	1179	10.6	44.1	0.60	285	13.8	18.8	0.26	105	15.3	7.6	0.10
65	78	1660	10.1	9.5	8.5	9.1	9.4	1.54	4.2	4.7	0.46	1.98	13.3	100	2.45	0.268	0.262	4.2	0.14	1540	1779	121	33	B	F	0.0378	62.7	0.80	1228	11.0	51.9	0.67	366	14.0	26.0	0.33	156	15.4	12.1	0.16
70	83	1618	10.6	10.0	8.9	9.5	9.8	1.60	4.3	5.0	0.45	2.13	14.2	99	2.49	0.261	0.254	4.4	0.16	1623	1779	126	34	B	F	0.0433	70.1	0.84	1258	11.3	59.7	0.72	443	14.2	33.7	0.41	211	15.6	17.4	0.21
75	88	1576	11.1	10.5	9.3	9.9	10.2	1.65	4.4	5.3	0.44	2.28	15.1	99	2.52	0.254	0.248	4.6	0.17	1701	1779	130	36	B	F	0.0491	77.4	0.88	1274	11.7	67.3	0.76	514	14.4	41.8	0.47	268	15.8	23.6	0.27
80	93	1534	11.5	10.9	9.6	10.3	10.5	1.71	4.5	5.6	0.43	2.42	16.0	98	2.55	0.249	0.243	4.7	0.18	1773	1779	133	37	B	F	0.0551	84.5	0.91	1279	12.0	74.7	0.80	578	14.7	50.0	0.54	326	16.0	30.4	0.33
85	98	1492	12.0	11.4	10.0	10.6	10.9	1.76	4.5	5.9	0.43	2.57	16.8	97	2.59	0.244	0.238	4.9	0.18	1838	1779	137	38	B	F	0.0613	91.4	0.93	1276	12.4	81.9	0.84	633	14.9	58.1	0.59	380	16.2	37.5	0.38
90	103	1451	12.4	11.8	10.3	10.9	11.2	1.80	4.6	6.1	0.42	2.72	17.6	97	2.63	0.241	0.235	5.0	0.19	1898	1779	139	39	B	F	0.0675	98.0	0.95	1267	12.7	88.8	0.86	679	15.1	66.0	0.64	431	16.4	44.8	0.43
95	108	1410	12.8	12.2	10.6	11.2	11.5	1.85	4.7	6.3	0.42	2.86	18.2	96	2.66	0.238	0.232	5.1	0.20	1953	1779	142	40	B	F	0.0740	104.3	0.97	1252	13.0	95.3	0.88	718	15.4	73.7	0.68	477	16.6	52.2	0.48
100	113	1370	13.2	12.6	10.8	11.5	11.8	1.90	4.7	6.5	0.41	3.01	18.9	95	2.70	0.235	0.230	5.2	0.21	2003	1779	144	41	B	F	0.0805	110.3	0.98	1234	13.4	101.5	0.90	749	15.6	81.1	0.72	518	16.8	59.5	0.53
105	118	1331	13.6	13.0	11.1	11.7	12.0	1.94	4.8	6.7	0.41	3.15	19.5	94	2.74	0.233	0.228	5.3	0.21	2049	1779	145	42	B	F	0.0872	116.0	0.98	1213	13.7	107.5	0.91	774	15.8	88.1	0.75	554	17.0	66.7	0.57
110	123	1292	14.0	13.4	11.4	12.0	12.3	1.99	4.9	6.9	0.41	3.30	20.0	93	2.78	0.232	0.227	5.3	0.22	2090	1779	146	43	B	F	0.0939	121.3	0.99	1190	14.0	113.0	0.92	792	16.1	94.7	0.77	585	17.2	73.7	0.60
115	128	1255	14.4	13.7	11.6	12.2	12.5	2.03	4.9	7.1	0.40	3.44	20.5	93	2.82	0.231	0.226	5.4	0.22	2127	1779	148	43	B	F	0.1006	126.3	0.99	1166	14.4	118.2	0.92	806	16.3	101.0	0.79	610	17.4	80.3	0.63
120	133	1219	14.8	14.1	11.8	12.5	12.7	2.07	5.0	7.2	0.40	3.59	21.0	92	2.86	0.230	0.225	5.4	0.23	2160	1779	148	44	B	F	0.1075	131.1	0.99	1141	14.7	123.1	0.93	815	16.6	106.8	0.80	632	17.6	86.8	0.65
125	138	1184	15.2	14.5	12.0	12.7	13.0	2.11	5.1	7.4	0.40	3.73	21.4	91	2.91	0.229	0.224	5.5	0.23	2191	1779	149	44	B	F	0.1144	135.5	0.98	1115	15.0	127.7	0.93	820	16.8	112.3	0.81	649	17.8	92.8	0.67
130	143	1150	15.5	14.8	12.2	12.9	13.2	2.16	5.1	7.5	0.40	3.88	21.8	90	2.95	0.229	0.224	5.5	0.24	2218	1779	149	45	B	F	0.1214	139.6	0.98	1090	15.3	132.0	0.92	822	17.0	117.4	0.82	662	18.0	98.5	0.69
135	148	1118	15.9	15.2	12.4	13.1	13.3	2.19	5.2	7.6	0.40	4.02	22.1	89	2.99	0.229	0.224	5.6	0.24	2242	1779	150	45	B	F	0.1284	143.5	0.97	1064	15.6	136.0	0.92	821	17.3	122.1	0.82	673	18.2	104.0	0.70
140	153	1086	16.2	15.5	12.6	13.2	13.5	2.23	5.2	7.8	0.40	4.16	22.4	89	3.03	0.229	0.224	5.6	0.24	2265	1779	150	45	B	F	0.1354	147.0	0.96	1039	15.9	139.6	0.91	818	17.5	126.5	0.83	680	18.4	109.0	0.71
145	158	1056	16.6	15.8	12.8	13.4	13.7	2.27	5.3	7.9	0.40	4.30	22.7	88	3.08	0.229	0.224	5.6	0.25	2284	1779	150	45	B	F	0.1423	150.3	0.95	1014	16.2	143.1	0.91	813	17.8	130.6	0.83	685	18.7	113.8	0.72
150	163	1027	16.9	16.1	13.0	13.6	13.9	2.31	5.3	8.0	0.40	4.45	23.0	87	3.12	0.230	0.225	5.6	0.25	2302	1779	149	46	B	F	0.1494	153.4	0.94	989	16.5	146.3	0.90	806	18.0	134.3	0.82	687	18.9	118.2	0.73
155	168	999	17.2	16.5	13.1	13.7	14.0	2.35	5.4	8.0	0.40	4.59	23.2	86	3.16	0.230	0.225	5.6	0.25	2318	1779	149	46	B	F	0.1564	156.2	0.93	965	16.8	149.2	0.89	798	18.2	137.8	0.82	688	19.1	122.3	0.73
160	173	972	17.5	16.8	13.3	13.9	14.2	2.38	5.4	8.1	0.40	4.73	23.5	85	3.21	0.231	0.226	5.6	0.25	2333	1779	149	46	B	F	0.1633	158.7	0.92	942	17.1	151.9	0.88	789	18.5	140.9	0.81	687	19.3	126.1	0.73
165	178	946	17.8	17.1	13.4	14.0	14.3	2.42	5.5	8.2	0.40	4.87	23.7	85	3.25	0.231	0.227	5.6	0.25	2346	1779	148	46	B	F	0.1703	161.1	0.91	919	17.4	154.3	0.87	779	18.7	143.8	0.81	684	19.5	129.6	0.73
170	183	922	18.2	17.4	13.6	14.2	14.5	2.45	5.5	8.3	0.40	5.01	23.9	84	3.29	0.232	0.227	5.6	0.25	2357	1779	148	46	B	F	0.1772	163.4	0.89	897	17.7	156.7	0.86	769	19.0	146.6	0.80	681	19.7	133.0	0.73
175	188	898	18.5	17.7	13.7	14.3	14.6	2.48	5.6	8.3	0.40	5.15	24.0	83	3.34	0.233	0.228	5.6	0.25	2368	1779	147	46	B	F	0.1841	165.3	0.88	876	18.0	158.7	0.84	758	19.2	149.0	0.79	676	19.9	135.9	0.72
180	193	876	18.8	18.0	13.8	14.5	14.7	2.52	5.6	8.4	0.40	5.29	24.2	82	3.38	0.234	0.229	5.6	0.26	2378	1779	147	46	B	F	0.1910	167.3	0.87	856	18.2	160.8	0.83	748	19.4	151.4	0.78	671	20.2	138.8	0.72

Table A12. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh	Total	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
age	age	N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
		SI = 8 m Initial Density = 3000 stems/ha																																						
5	18	2993	1.1	1.0	1.8	2.0	2.0	0.68	1.4	0.3	0.84	0.37	0.3	196	1.83	0.911	0.892	0.3	0.00	378	2551	20	11	A	F	0.0001	0.3	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	23	2976	2.2	2.0	2.5	2.8	2.8	0.75	1.8	0.5	0.77	0.44	1.1	136	1.83	0.666	0.650	0.7	0.01	492	2551	34	13	A	F	0.0005	1.4	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	28	2949	3.1	2.9	3.1	3.5	3.6	0.82	2.2	0.8	0.71	0.53	2.2	121	1.84	0.528	0.514	1.2	0.02	623	2551	49	16	A	F	0.0012	3.5	0.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	33	2913	3.9	3.6	3.8	4.2	4.3	0.89	2.5	1.2	0.66	0.64	3.5	115	1.85	0.441	0.429	1.8	0.04	764	2551	64	19	A	F	0.0024	7.0	0.21	2	8.5	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	38	2868	4.6	4.3	4.4	4.9	5.0	0.96	2.7	1.6	0.61	0.75	4.9	112	1.87	0.382	0.372	2.3	0.05	910	2551	78	22	A	F	0.0040	11.6	0.31	41	8.7	0.5	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	43	2816	5.4	5.0	5.0	5.5	5.7	1.03	3.0	2.1	0.58	0.87	6.3	110	1.88	0.341	0.331	2.7	0.07	1056	2551	91	25	A	F	0.0062	17.4	0.40	204	8.7	2.9	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	48	2757	6.0	5.6	5.6	6.1	6.3	1.10	3.1	2.5	0.54	0.99	7.8	109	1.90	0.310	0.301	3.2	0.08	1200	2551	103	27	A	F	0.0087	24.1	0.50	470	8.8	7.6	0.16	3	12.6	0.1	0.00	0	0.0	0.0	0.00
40	53	2693	6.6	6.2	6.1	6.7	6.9	1.17	3.3	2.9	0.52	1.12	9.3	108	1.93	0.287	0.278	3.6	0.10	1339	2551	114	30	B	F	0.0117	31.5	0.59	759	9.0	14.2	0.27	14	12.9	0.6	0.01	0	0.0	0.0	0.00
45	58	2624	7.2	6.8	6.6	7.3	7.5	1.23	3.4	3.4	0.49	1.25	10.8	107	1.95	0.269	0.261	4.0	0.12	1472	2551	124	33	B	F	0.0151	39.6	0.68	1019	9.3	22.0	0.38	43	13.0	2.1	0.04	5	14.6	0.3	0.01
50	63	2551	7.8	7.4	7.1	7.8	8.0	1.29	3.5	3.8	0.48	1.38	12.2	107	1.98	0.255	0.247	4.4	0.13	1597	2551	133	35	B	F	0.0188	48.0	0.76	1229	9.5	30.7	0.49	93	13.2	5.0	0.08	16	14.8	1.0	0.02
55	68	2476	8.3	7.9	7.5	8.2	8.5	1.35	3.6	4.1	0.46	1.51	13.5	106	2.01	0.244	0.237	4.7	0.15	1713	2551	141	37	B	F	0.0229	56.6	0.83	1389	9.8	39.8	0.59	164	13.3	9.6	0.14	37	14.9	2.4	0.04
60	73	2400	8.9	8.4	8.0	8.7	8.9	1.41	3.7	4.5	0.45	1.65	14.8	105	2.04	0.235	0.228	5.0	0.16	1821	2551	147	40	B	F	0.0272	65.3	0.89	1505	10.1	49.1	0.67	250	13.5	15.7	0.22	71	15.0	4.9	0.07
65	78	2322	9.4	8.9	8.4	9.1	9.4	1.46	3.8	4.8	0.43	1.78	16.0	104	2.08	0.228	0.221	5.2	0.18	1919	2551	153	41	B	F	0.0318	73.9	0.95	1583	10.5	58.4	0.75	344	13.7	23.1	0.30	118	15.2	8.7	0.11
70	83	2245	9.8	9.3	8.8	9.5	9.8	1.52	3.9	5.1	0.42	1.92	17.1	103	2.11	0.222	0.216	5.4	0.19	2009	2551	158	43	B	F	0.0367	82.4	0.99	1632	10.8	67.5	0.81	440	13.9	31.5	0.38	174	15.3	13.6	0.16
75	88	2168	10.3	9.8	9.1	9.9	10.2	1.57	4.0	5.4	0.42	2.05	18.1	103	2.15	0.218	0.211	5.6	0.20	2090	2551	163	44	B	F	0.0418	90.6	1.03	1657	11.1	76.4	0.87	532	14.1	40.5	0.46	237	15.5	19.7	0.22
80	93	2092	10.8	10.2	9.5	10.2	10.5	1.62	4.1	5.7	0.41	2.19	19.1	102	2.19	0.214	0.208	5.8	0.21	2163	2551	166	46	B	F	0.0471	98.6	1.06	1664	11.4	84.9	0.91	617	14.3	49.8	0.54	303	15.7	26.6	0.29
85	98	2017	11.2	10.6	9.8	10.5	10.9	1.67	4.1	6.0	0.40	2.32	19.9	101	2.23	0.211	0.205	5.9	0.22	2228	2551	169	47	B	F	0.0526	106.1	1.08	1657	11.8	93.1	0.95	693	14.5	59.3	0.61	369	15.8	34.2	0.35
90	103	1945	11.6	11.1	10.1	10.8	11.2	1.72	4.2	6.2	0.40	2.46	20.7	100	2.27	0.209	0.203	6.1	0.23	2286	2551	171	48	B	F	0.0583	113.4	1.10	1641	12.1	100.8	0.98	759	14.7	68.6	0.67	433	16.0	42.2	0.41
95	108	1874	12.1	11.5	10.4	11.1	11.5	1.77	4.3	6.4	0.39	2.60	21.4	99	2.31	0.207	0.201	6.2	0.24	2337	2551	173	49	B	F	0.0641	120.2	1.11	1616	12.4	108.1	1.00	814	14.9	77.5	0.72	493	16.2	50.4	0.47
100	113	1806	12.5	11.9	10.6	11.4	11.8	1.81	4.4	6.6	0.39	2.74	22.1	98	2.35	0.206	0.200	6.2	0.25	2382	2551	175	49	B	F	0.0701	126.6	1.12	1586	12.7	115.0	1.02	859	15.1	86.2	0.76	547	16.4	58.7	0.52
105	118	1740	12.9	12.2	10.9	11.7	12.0	1.86	4.4	6.8	0.39	2.87	22.6	97	2.40	0.205	0.199	6.3	0.25	2421	2551	175	50	C	F	0.0762	132.6	1.12	1551	13.1	121.4	1.03	895	15.4	94.3	0.80	596	16.6	66.9	0.57
110	123	1677	13.3	12.6	11.1	11.9	12.3	1.90	4.5	7.0	0.38	3.01	23.2	97	2.44	0.205	0.199	6.4	0.26	2456	2551	176	51	C	F	0.0825	138.3	1.12	1515	13.4	127.5	1.04	923	15.6	102.1	0.83	638	16.7	74.9	0.61
115	128	1616	13.6	13.0	11.4	12.2	12.5	1.94	4.6	7.2	0.38	3.15	23.6	96	2.49	0.205	0.199	6.4	0.26	2486	2551	176	51	C	F	0.0887	143.4	1.12	1476	13.7	133.0	1.04	942	15.8	109.2	0.85	674	16.9	82.6	0.65
120	133	1558	14.0	13.4	11.6	12.4	12.7	1.99	4.6	7.3	0.38	3.29	24.0	95	2.53	0.205	0.199	6.4	0.27	2511	2551	176	51	C	F	0.0952	148.3	1.11	1436	14.0	138.2	1.04	956	16.0	115.9	0.87	703	17.1	89.9	0.68
125	138	1502	14.4	13.7	11.8	12.6	13.0	2.03	4.7	7.5	0.38	3.43	24.4	94	2.58	0.205	0.199	6.4	0.27	2533	2551	176	52	C	F	0.1017	152.7	1.11	1396	14.3	142.9	1.04	963	16.3	122.0	0.88	728	17.3	96.9	0.70
130	143	1449	14.7	14.1	12.0	12.8	13.2	2.07	4.8	7.6	0.38	3.57	24.7	93	2.63	0.205	0.200	6.4	0.27	2552	2551	176	52	C	F	0.1082	156.8	1.10	1357	14.6	147.3	1.03	966	16.5	127.7	0.89	747	17.5	103.5	0.72
135	148	1399	15.1	14.4	12.2	13.0	13.3	2.11	4.8	7.7	0.38	3.71	25.1	92	2.67	0.206	0.200	6.4	0.28	2568	2551	175	52	C	F	0.1148	160.6	1.09	1318	14.9	151.4	1.02	966	16.7	133.0	0.90	762	17.7	109.7	0.74
140	153	1351	15.4	14.7	12.4	13.2	13.5	2.15	4.9	7.8	0.38	3.85	25.3	91	2.72	0.207	0.201	6.4	0.28	2581	2551	174	52	C	F	0.1215	164.1	1.07	1280	15.2	155.1	1.01	962	17.0	137.8	0.90	772	18.0	115.3	0.75
145	158	1305	15.8	15.1	12.6	13.3	13.7	2.19	5.0	7.9	0.38	3.98	25.6	90	2.77	0.207	0.202	6.4	0.28	2592	2551	173	52	C	F	0.1281	167.2	1.06	1242	15.6	158.4	1.00	954	17.2	142.1	0.90	779	18.2	120.6	0.76
150	163	1261	16.1	15.4	12.7	13.5	13.9	2.22	5.0	8.0	0.38	4.12	25.8	89	2.82	0.208	0.203	6.4	0.28	2601	2551	172	52	C	F	0.1348	170.0	1.04	1205	15.9	161.5	0.99	945	17.4	146.0	0.90	783	18.4	125.5	0.77
155	168	1220	16.5	15.7	12.9	13.7	14.0	2.26	5.1	8.1	0.38	4.26	25.9	89	2.86	0.209	0.204	6.4	0.28	2609	2551	171	52	C	F	0.1416	172.7	1.03	1170	16.2	164.3	0.98	934	17.7	149.7	0.89	785	18.6	130.2	0.77
160	173	1181	16.8	16.0	13.0	13.8	14.2	2.30	5.1	8.2	0.38	4.40	26.1	88	2.91	0.210	0.205	6.4	0.28	2615	2551	170	52	C	F	0.1483	175.1	1.01	1137	16.4	166.9	0.96	922	17.9	153.1	0.88	784	18.8	134.4	0.78
165	178	1143	17.1	16.3	13.2	14.0	14.3	2.33	5.2	8.3	0.38	4.54	26.3	87	2.96	0.212	0.206	6.3	0.28	2619	2551	169	52	C	F	0.1549	177.1	0.99	1104	16.7	169.2	0.95	909	18.2	156.0	0.88	781	19.0	138.1	0.78
170	183	1108	17.4	16.7	13.3	14.1	14.5	2.37	5.2	8.3	0.38	4.68	26.4	86	3.00	0.213	0.208	6.3	0.28	2623	2551	168	52	C	F	0.1616	179.1	0.98	1073	17.0	171.3	0.94	895	18.4	158.8	0.87	776	19.2	141.7	0.77
175	188	1074	17.7	17.0	13.5	14.2	14.6	2.40	5.3	8.4	0.38	4.81	26.5	85	3.05	0.214	0.209	6.3	0.28	2626	2551	167	52	C	F	0.1683	180.8	0.96	1042	17.3	173.2	0.92	880	18.6	161.2	0.86	770	19.4	144.9	0.77
180	193	1042	18.0	17.3	13.6	14.4	14.7	2.44	5.4	8.4	0.38	4.95	26.6	84	3.10	0.216	0.210	6.3	0.28	2627	2551	166	52	C	F	0.1750	182.4	0.95	1013	17.6	174.9	0.91	865	18.9	163.4	0.85	764	19.6	147.9	0.77
		SI = 8 m Initial Density = 4000 stems/ha																																						
5	18	3989	1.0	1.0	1.8	2.0	2.0	0.68	1.4	0.3	0.82	0.36	0.3	212	1.58	0.791	0.773	0.3	0.00	495	3286	25	14	A	F	0.0001	0.3	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	23	3961	2.0	1.9	2.4	2.7	2.8	0.74	1.7	0.5	0.75	0.43	1.2	143	1.59	0.579	0.564	0.9	0.01	632	3286	43	17	A	F	0.0004	1.5	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	28	3917	2.9	2.7	3.1	3.5	3.6	0.80	2.1	0.9	0.69	0.51	2.5	126	1.60	0.459	0.446	1.5	0.03	786	3286	61	20	A	F	0.0010	4.0	0.14	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	33	3858	3.6	3.4	3.7	4.2	4.3	0.87	2.3	1.3	0.64	0.60	4.0	120	1.61	0.384	0.373	2.1	0.04	952	3286	78	23	A	F	0.0020	7.9	0.24	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	38	3787	4.4	4.1	4.3	4.9	5.0	0.94	2.6	1.7	0.59	0.71	5.6	116	1.62	0.334	0.323	2.7	0.06	1121	3286	95	27	A	F	0.0035	13.2	0.35	24	8.5	0.3	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	43	3703	5.0	4.7	4.9	5.5	5.7	1.00	2.8	2.1	0.55	0.81	7.3	114	1.64	0.298	0.289	3.3	0.08	1289	3286	110	30	B	F	0.0053	19.7	0.46	160	8.6	2.1	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	48	3609	5.7	5.3	5.5	6.1	6.3	1.07	2.9	2.6	0.52	0.93	9.1	113	1.66	0.272	0.263	3.8	0.10	1453	3286	124	33	B	F	0.0075	27.2	0.57	435	8.7	6.5	0.14	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	53	3507	6.3	5.9	6.0	6.7	6.9	1.13	3.1	3.0	0.50	1.04	10.8	112	1.69	0.253	0.244	4.3	0.12	1610	3286	137	37	B	F	0.0102	35.6	0.67	772	8.8	13.3	0.25	7	12.7	0.3	0.01	0	0.0	0.0	0.00
45	58	3399	6.8	6.4	6.5	7.2	7.5	1.19	3.2	3.4	0.47	1.16	12.4	111	1.72	0.237	0.229	4.8	0.14	1757	3286	149	39	B	F	0.0131	44.6	0.77	1099	9.0	21.9	0.38	25	12.9	1.2	0.02	2	14.3	0.1	0.00
50	63	3286	7.4	6.9	7.0	7.7	8.0	1.25	3.3	3.8	0.45	1.28	14.0	110	1.74	0.226	0.218	5.2	0.16	1894	3286	159	42	B	F	0.0164	53.9	0.86	1376	9.3	31.5	0.50	64	13.0	3.4	0.05	8	14.6	0.5	0.01
55	68	3171	7.9	7.4	7.4	8.2	8.5	1.30	3.4	4.2	0.44	1.40	15.5	109	1.78	0.217	0.209	5.5	0.17	2020	3286	167	44	B	F	0.0200	63.5	0.93	1594	9.6	41.6	0.61	126	13.2	7.1	0.10	22	14.8	1.4	0.02
60	73	3054	8.4	7.9	7.8	8.6	8.9	1.36	3.5	4.5	0.43	1.53	16.9	108	1.81	0.209	0.202	5.8	0.19	2134	3286	175	47	B	F	0.0239	73.1	1.00	1754	9.8	52.1	0.71	210	13.3	12.7	0.17	48	14.9	3.2	0.04
65	78	2938	8.9	8.4	8.2	9.1	9.4	1.41	3.6	4.9	0.42	1.65	18.2	107	1.84	0.204	0.197	6.1	0.21	2237	3286	181	48	B	F	0.0281	82.5	1.06	1865	10.1	62.5	0.80	308	13.5	19.9	0.26	87	15.0	6.2	0.08
70	83	2822	9.4	8.8	8.6	9.5	9.8	1.46	3.7	5.2	0.41	1.78	19.4	106	1.88	0.199	0.192	6.3	0.22	2329	3286	186	50	C	F	0.0325	91.7	1.10	1934	10.4	72.6	0.87	413	13.7	28.4	0.34	139	15.2	10.5	0.13
75	88	2709	9.8	9.3	9.0	9.8	10.2	1.51	3.7	5.5	0.40	1.90	20.5	105	1.92	0.196	0.189	6.5	0.23	2411	3286	190	52	C	F	0.0372	100.7	1.14	1972	10.7	82.5	0.94	520	13.8	37.9	0.43	202	15.3	16.2	0.18
80	93	2598	10.3	9.7	9.3	10.2	10.5	1.56	3.8	5.7	0.39	2.03	21.5	105	1.96	0.193	0.186	6.7	0.24	2482	3286	194	53	C	F	0.0420	109.2	1.17	1984	11.0	91.9	0.99	621	14.0	48.0	0.52	271	15.4	22.9	0.25
85	98	2490	10.7	10.1	9.6	10.5	10.9	1.61	3.9	6.0	0.39	2.16	22.3	104	2.00	0.191	0.185	6.8	0.25	2545	3286	196	54	C	F	0.0471	117.3	1.20	1976	11.3	100.9	1.03	713	14.2	58.2	0.59	343	15.6	30.5	0.31
90	103	2386	11.1	10.5	9.9	10.8	11.2	1.66	4.0	6.2	0.38	2.29	23.1	103	2.05	0.190	0.183	6.9	0.26	2599	3286	198	55	C	F	0.0523	124.9	1.21	1954	11.7	109.3	1.06	795	14.4	68.4	0.66	415	15.8	38.7	0.38
95	108	2287	11.5	10.9	10.2	11.1	11.5	1.71	4.0	6.5	0.38	2.42	23.9	102	2.09	0.189	0.182	7.0	0.27	2645	3286	199	55	C	F	0.0578	132.1	1.22	1922	12.0	117.2	1.09	866	14.6	78.5	0.73	485	15.9	47.4	0.44
100	113	2191	11.9	11.3	10.5	11.4	11.8	1.75	4.1	6.7	0.38	2.56	24.5	101	2.14	0.188	0.182	7.1	0.28	2684	3286	200	56	C	F	0.0634	138.8	1.23	1882	12.3	124.6	1.10	924	14.8	88.0	0.78	549	16.1	56.3	0.50
105	118	2100	12.3	11.7	10.7	11.6	12.0	1.80	4.2	6.9	0.37	2.69	25.1	100	2.18	0.188	0.182	7.1	0.28	2718	3286	200	56	C	F	0.0690	145.0	1.23	1836	12.6	131.4	1.11	972	15.0	97.2	0.82	608	16.3	65.2	0.55
110	123	2013	12.7	12.1	11.0	11.9	12.3	1.84	4.3	7.0	0.37	2.82	25.6	99	2.23	0.188	0.182	7.2	0.29	2745	3286	200	57	C	F	0.0749	150.8	1.23	1788	12.9	137.8	1.12	1008	15.3	105.7	0.86	660	16.5	73.9	0.60
115	128	1930	13.1	12.5	11.2	12.1	12.5	1.88	4.3	7.2	0.37	2.96	26.0	98	2.28	0.188	0.182	7.2	0.29	2768	3286	199	57	C	F	0.0808	156.0	1.22	1736	13.2	143.6	1.12	1036	15.5	113.7	0.89	705	16.6	82.3	0.64
120	133	1852	13.5	12.8	11.4	12.3	12.7	1.93	4.4	7.4	0.37	3.09	26.4	97	2.32	0.188	0.182	7.2	0.30	2787	3286	199	57	C	F	0.0869	160.9	1.21	1685	13.5	149.0	1.12	1055	15.7	121.1	0.91	743	16.8	90.4	0.68
125	138	1777	13.8	13.2	11.6	12.5	13.0	1.97	4.5	7.5	0.37	3.22	26.7	96	2.37	0.189	0.183	7.2	0.30	2801	3286	198	57	C	F	0.0930	165.3	1.20	1633	13.9	153.8	1.11	1066	15.9	127.8	0.93	774	17.0	98.1	0.71
130	143	1707	14.2	13.5	11.8	12.7	13.2	2.01	4.5	7.6	0.37	3.36	27.0	95	2.42	0.190	0.184	7.2	0.30	2813	3286	197	57	C	F	0.0993	169.5	1.19	1581	14.2	158.3	1.11	1072	16.2	134.1	0.94	800	17.2	105.4	0.74
135	148	1640	14.6	13.9	12.0	12.9	13.3	2.05	4.6	7.8	0.37	3.49	27.3	94	2.47	0.191	0.185	7.1	0.30	2821	3286	195	57	C	F	0.1055	173.1	1.17	1531	14.5	162.4	1.10	1073	16.4	139.8	0.94	819	17.4	112.1	0.76
140	153	1577	14.9	14.2	12.2	13.1	13.5	2.09	4.7	7.9	0.37	3.63	27.5	93	2.52	0.192	0.186	7.1	0.31	2827	3286	194	57	C	F	0.1119	176.5	1.15	1481	14.8	166.1	1.09	1069	16.6	144.9	0.95	834	17.6	118.4	0.77
145	158	1518	15.2	14.5	12.4	13.3	13.7	2.12	4.7	8.0	0.37	3.76	27.7	92	2.57	0.193	0.187	7.1	0.31	2831	3286	192	57	C	F	0.1183	179.6	1.14	1434	15.1	169.5	1.07	1062	16.8	149.7	0.95	844	17.8	124.3	0.79
150	163	1461	15.6	14.9	12.5	13.5	13.9	2.16	4.8	8.1	0.37	3.90	27.8	91	2.62	0.194	0.189	7.1	0.31	2833	3286	191	57	C	F	0.1247	182.2	1.12	1387	15.4	172.5	1.06	1052	17.1	153.9	0.94	850	18.0	129.6	0.80
155	168	1408	15.9	15.2	12.7	13.6	14.0	2.20	4.9	8.2	0.37	4.03	28.0	90	2.67	0.196	0.190	7.0	0.31	2834	3286	189	57	C	F	0.1312	184.7	1.10	1342	15.7	175.2	1.04	1040	17.3	157.8	0.94	854	18.2	134.6	0.80
160	173	1358	16.2	15.5	12.8	13.8	14.2	2.24	4.9	8.2	0.37	4.17	28.1	89	2.71	0.197	0.191	7.0	0.31	2833	3286	187	57	C	F	0.1377	187.0	1.08	1300	15.9	177.8	1.03	1026	17.5	161.3	0.93	854	18.4	139.2	0.80
165	178	1310	16.6	15.8	13.0	13.9	14.3	2.27	5.0	8.3	0.37	4.30	28.2	89	2.76	0.199	0.193	6.9	0.31	2831	3286	186	56	C	F	0.1442	188.9	1.06	1258	16.2	179.9	1.01	1010	17.8	164.3	0.92	851	18.6	143.3	0.81
170	183	1265	16.9	16.1	13.1	14.0	14.5	2.31	5.0	8.4	0.37	4.44	28.3	88	2.81	0.200	0.194	6.9	0.31	2828	3286	184	56	C	F	0.1507	190.6	1.04	1219	16.5	181.8	0.99	993	18.0	167.1	0.91	847	18.8	147.1	0.80
175	188	1223	17.2	16.4	13.3	14.2	14.6	2.34	5.1	8.4	0.37	4.57	28.4	87	2.86	0.202	0.196	6.8	0.31	2825	3286	182	56	C	F	0.1572	192.2	1.02	1182	16.8	183.7	0.98	977	18.2	169.7	0.90	841	19.1	150.5	0.80
180	193	1183	17.5	16.7	13.4	14.3	14.7	2.38	5.1	8.5	0.37	4.71	28.4	86	2.91	0.203	0.197	6.8	0.31	2820	3286	181	56	C	F	0.1637	193.6	1.00	1146	17.1	185.2	0.96	959	18.4	171.9	0.89	834	19.3	153.7	0.80

Table A13. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 8 m Initial Density = 5000 stems/ha																																								
5	18	4984	1.0	0.9	1.8	2.0	2.0	0.68	1.3	0.3	0.81	0.36	0.4	225	1.42	0.709	0.691	0.4	0.00	610	3995	30	18	A	F	0.0001	0.3	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	23	4944	1.9	1.8	2.4	2.7	2.8	0.73	1.7	0.6	0.74	0.42	1.4	150	1.42	0.519	0.505	1.0	0.02	767	3995	50	21	A	F	0.0003	1.7	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	28	4881	2.7	2.5	3.1	3.5	3.6	0.79	2.0	0.9	0.68	0.49	2.8	131	1.43	0.412	0.400	1.7	0.03	943	3995	71	24	A	F	0.0009	4.4	0.16	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	33	4798	3.4	3.2	3.7	4.2	4.3	0.85	2.2	1.3	0.62	0.58	4.5	124	1.44	0.346	0.334	2.4	0.05	1129	3995	91	28	A	F	0.0018	8.7	0.26	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	38	4695	4.1	3.9	4.3	4.9	5.0	0.91	2.4	1.7	0.57	0.67	6.3	120	1.46	0.301	0.290	3.1	0.07	1319	3995	110	32	B	F	0.0031	14.4	0.38	14	8.5	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	43	4576	4.8	4.5	4.9	5.5	5.7	0.98	2.6	2.2	0.54	0.77	8.2	118	1.48	0.269	0.260	3.8	0.09	1506	3995	128	35	B	F	0.0047	21.6	0.50	123	8.5	1.6	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	48	4444	5.4	5.1	5.4	6.1	6.3	1.04	2.8	2.6	0.51	0.88	10.1	116	1.50	0.246	0.237	4.4	0.11	1686	3995	144	39	B	F	0.0067	29.8	0.62	389	8.5	5.6	0.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	53	4301	6.0	5.6	5.9	6.7	6.9	1.10	2.9	3.0	0.48	0.98	12.0	115	1.52	0.229	0.220	4.9	0.13	1857	3995	159	42	B	F	0.0091	39.0	0.74	755	8.7	12.3	0.23	4	12.5	0.2	0.00	0	0.0	0.0	0.00
45	58	4151	6.5	6.1	6.4	7.2	7.5	1.16	3.0	3.4	0.46	1.09	13.8	114	1.55	0.216	0.208	5.4	0.16	2016	3995	171	45	B	F	0.0118	48.8	0.84	1134	8.9	21.2	0.37	15	12.8	0.7	0.01	0	0.0	0.0	0.00
50	63	3995	7.0	6.6	6.9	7.7	8.0	1.21	3.1	3.8	0.44	1.21	15.5	113	1.58	0.205	0.198	5.9	0.18	2162	3995	182	48	B	F	0.0147	58.9	0.93	1471	9.1	31.5	0.50	44	12.9	2.3	0.04	4	14.5	0.2	0.00
55	68	3837	7.5	7.1	7.3	8.2	8.5	1.27	3.2	4.2	0.42	1.32	17.2	112	1.61	0.198	0.190	6.2	0.20	2294	3995	191	51	C	F	0.0180	69.2	1.02	1744	9.3	42.5	0.62	97	13.1	5.4	0.08	14	14.6	0.9	0.01
60	73	3678	8.0	7.6	7.7	8.6	8.9	1.32	3.3	4.5	0.41	1.44	18.7	111	1.65	0.191	0.184	6.6	0.21	2412	3995	199	53	C	F	0.0216	79.5	1.09	1949	9.6	53.8	0.74	173	13.2	10.3	0.14	33	14.8	2.2	0.03
65	78	3521	8.5	8.0	8.1	9.0	9.4	1.37	3.4	4.9	0.40	1.56	20.0	110	1.69	0.187	0.180	6.9	0.23	2517	3995	205	55	C	F	0.0254	89.6	1.15	2094	9.9	65.1	0.83	270	13.3	17.0	0.22	65	14.9	4.5	0.06
70	83	3367	9.0	8.5	8.5	9.4	9.8	1.42	3.5	5.2	0.39	1.68	21.3	109	1.72	0.183	0.176	7.1	0.24	2610	3995	210	56	C	F	0.0295	99.4	1.20	2187	10.2	76.2	0.92	379	13.5	25.3	0.30	111	15.0	8.2	0.10
75	88	3216	9.4	8.9	8.8	9.8	10.2	1.47	3.5	5.5	0.39	1.80	22.4	108	1.76	0.180	0.173	7.3	0.26	2690	3995	214	58	C	F	0.0338	108.8	1.24	2238	10.5	86.9	0.99	493	13.7	34.9	0.40	169	15.2	13.2	0.15
80	93	3070	9.9	9.3	9.2	10.1	10.5	1.52	3.6	5.8	0.38	1.92	23.5	107	1.80	0.178	0.172	7.5	0.27	2759	3995	217	59	C	F	0.0384	117.8	1.27	2257	10.8	97.0	1.04	606	13.9	45.3	0.49	238	15.3	19.5	0.21
85	98	2930	10.3	9.8	9.5	10.5	10.9	1.57	3.7	6.0	0.37	2.04	24.4	106	1.85	0.177	0.170	7.6	0.28	2818	3995	219	60	C	F	0.0431	126.3	1.29	2252	11.1	106.7	1.09	713	14.0	56.2	0.57	312	15.5	26.9	0.27
90	103	2795	10.7	10.2	9.8	10.8	11.2	1.62	3.8	6.2	0.37	2.17	25.2	105	1.89	0.176	0.169	7.7	0.29	2867	3995	221	61	C	F	0.0480	134.2	1.30	2227	11.4	115.7	1.12	808	14.2	67.1	0.65	389	15.6	35.2	0.34
95	108	2667	11.1	10.6	10.0	11.0	11.5	1.66	3.9	6.5	0.37	2.30	25.9	104	1.94	0.175	0.169	7.8	0.30	2908	3995	221	61	C	F	0.0531	141.7	1.31	2189	11.7	124.1	1.15	892	14.4	77.9	0.72	465	15.8	44.0	0.41
100	113	2545	11.5	10.9	10.3	11.3	11.8	1.71	3.9	6.7	0.36	2.42	26.5	103	1.98	0.175	0.169	7.8	0.30	2942	3995	221	62	C	F	0.0584	148.6	1.31	2142	12.0	131.9	1.17	963	14.6	88.3	0.78	538	15.9	53.3	0.47
105	118	2429	11.9	11.3	10.6	11.6	12.0	1.75	4.0	6.9	0.36	2.55	27.1	102	2.03	0.175	0.169	7.8	0.31	2969	3995	221	62	C	F	0.0638	154.9	1.31	2087	12.3	139.1	1.18	1021	14.8	98.1	0.83	605	16.1	62.6	0.53
110	123	2320	12.3	11.7	10.8	11.8	12.3	1.79	4.1	7.0	0.36	2.68	27.6	101	2.08	0.176	0.169	7.9	0.31	2991	3995	220	62	C	F	0.0693	160.8	1.31	2028	12.6	145.7	1.18	1068	15.0	107.5	0.87	665	16.3	71.8	0.58
115	128	2217	12.7	12.1	11.0	12.1	12.5	1.84	4.1	7.2	0.36	2.81	28.0	100	2.12	0.176	0.170	7.9	0.32	3007	3995	219	62	C	F	0.0750	166.2	1.30	1968	12.9	151.9	1.19	1103	15.2	116.2	0.91	718	16.4	80.8	0.63
120	133	2119	13.0	12.4	11.2	12.3	12.7	1.88	4.2	7.4	0.36	2.94	28.3	99	2.17	0.177	0.171	7.8	0.32	3019	3995	218	62	C	F	0.0807	171.1	1.29	1905	13.2	157.4	1.18	1129	15.4	124.2	0.93	764	16.6	89.5	0.67
125	138	2027	13.4	12.8	11.4	12.5	13.0	1.92	4.3	7.5	0.36	3.07	28.6	98	2.22	0.178	0.172	7.8	0.32	3028	3995	216	62	C	F	0.0866	175.5	1.27	1842	13.5	162.4	1.18	1145	15.7	131.6	0.95	802	16.8	97.8	0.71
130	143	1940	13.8	13.1	11.6	12.7	13.2	1.96	4.4	7.6	0.36	3.20	28.9	97	2.27	0.179	0.173	7.8	0.33	3032	3995	214	62	C	F	0.0926	179.6	1.26	1780	13.8	167.0	1.17	1155	15.9	138.3	0.97	834	17.0	105.7	0.74
135	148	1859	14.1	13.5	11.8	12.9	13.3	2.00	4.4	7.8	0.36	3.33	29.1	96	2.32	0.180	0.174	7.7	0.33	3035	3995	213	62	C	F	0.0986	183.3	1.24	1720	14.1	171.2	1.16	1158	16.1	144.5	0.98	859	17.2	113.0	0.76
140	153	1782	14.5	13.8	12.0	13.1	13.5	2.04	4.5	7.9	0.36	3.46	29.3	95	2.37	0.181	0.175	7.7	0.33	3034	3995	210	62	C	F	0.1047	186.5	1.22	1661	14.4	174.9	1.14	1156	16.3	150.1	0.98	878	17.4	119.8	0.78
145	158	1710	14.8	14.1	12.2	13.2	13.7	2.08	4.6	8.0	0.36	3.59	29.5	94	2.42	0.183	0.176	7.7	0.33	3032	3995	208	61	C	F	0.1108	189.5	1.20	1604	14.7	178.3	1.13	1150	16.5	155.1	0.98	892	17.6	126.2	0.80
150	163	1642	15.1	14.5	12.3	13.4	13.9	2.11	4.6	8.1	0.36	3.73	29.6	93	2.47	0.184	0.178	7.6	0.33	3028	3995	206	61	C	F	0.1171	192.2	1.18	1549	15.0	181.3	1.11	1140	16.8	159.7	0.98	901	17.8	132.0	0.81
155	168	1578	15.5	14.8	12.5	13.6	14.0	2.15	4.7	8.2	0.36	3.86	29.7	92	2.52	0.186	0.179	7.5	0.33	3023	3995	204	61	C	F	0.1233	194.5	1.16	1496	15.3	184.0	1.10	1127	17.0	163.7	0.97	907	18.0	137.4	0.82
160	173	1518	15.8	15.1	12.7	13.7	14.2	2.19	4.8	8.2	0.36	3.99	29.8	91	2.57	0.187	0.181	7.5	0.33	3016	3995	202	61	C	F	0.1295	196.6	1.14	1445	15.6	186.4	1.08	1112	17.2	167.4	0.97	909	18.2	142.3	0.82
165	178	1461	16.1	15.4	12.8	13.8	14.3	2.22	4.8	8.3	0.36	4.12	29.8	90	2.62	0.189	0.182	7.4	0.33	3009	3995	200	60	C	F	0.1358	198.4	1.11	1396	15.9	188.5	1.06	1095	17.4	170.6	0.96	908	18.4	146.8	0.82
170	183	1408	16.4	15.7	12.9	14.0	14.5	2.26	4.9	8.4	0.36	4.25	29.9	89	2.67	0.191	0.184	7.4	0.33	3001	3995	198	60	C	F	0.1421	200.1	1.09	1351	16.1	190.5	1.04	1078	17.7	173.6	0.95	904	18.6	150.8	0.82
175	188	1357	16.7	16.0	13.1	14.1	14.6	2.29	4.9	8.4	0.36	4.39	29.9	88	2.71	0.192	0.186	7.3	0.33	2992	3995	195	60	C	F	0.1484	201.4	1.07	1306	16.4	192.0	1.02	1058	17.9	176.1	0.94	898	18.8	154.4	0.82
180	193	1310	17.1	16.3	13.2	14.2	14.7	2.33	5.0	8.5	0.36	4.52	29.9	87	2.76	0.194	0.187	7.2	0.32	2983	3995	193	59	C	F	0.1547	202.7	1.05	1264	16.7	193.6	1.00	1039	18.1	178.4	0.92	891	19.0	157.8	0.82
SI = 8 m Initial Density = 6000 stems/ha																																								
5	18	5979	0.9	0.8	1.7	2.0	2.0	0.67	1.3	0.3	0.80	0.36	0.4	237	1.29	0.648	0.631	0.4	0.00	724	4684	35	21	A	F	0.0001	0.3	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	23	5926	1.8	1.7	2.4	2.7	2.8	0.72	1.6	0.6	0.73	0.41	1.5	155	1.30	0.475	0.461	1.1	0.02	899	4684	58	24	A	F	0.0003	1.8	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	28	5843	2.6	2.4	3.0	3.5	3.6	0.78	1.9	0.9	0.66	0.48	3.1	135	1.31	0.378	0.365	1.9	0.03	1094	4684	81	28	A	F	0.0008	4.7	0.17	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	33	5732	3.3	3.1	3.6	4.2	4.3	0.84	2.2	1.3	0.61	0.56	4.9	127	1.32	0.317	0.306	2.7	0.05	1299	4684	104	32	B	F	0.0016	9.3	0.28	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	38	5596	4.0	3.7	4.2	4.8	5.0	0.90	2.3	1.8	0.56	0.65	6.9	123	1.34	0.276	0.266	3.5	0.08	1507	4684	125	36	B	F	0.0028	15.6	0.41	8	8.4	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	43	5440	4.6	4.3	4.8	5.5	5.7	0.96	2.5	2.2	0.52	0.74	9.0	120	1.36	0.247	0.238	4.2	0.10	1710	4684	145	40	B	F	0.0043	23.2	0.54	94	8.4	1.2	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	48	5266	5.2	4.8	5.3	6.1	6.3	1.02	2.6	2.6	0.49	0.84	11.1	119	1.38	0.227	0.218	4.9	0.12	1904	4684	163	44	B	F	0.0061	32.1	0.67	342	8.5	4.7	0.10	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	53	5080	5.7	5.4	5.9	6.6	6.9	1.07	2.8	3.0	0.47	0.94	13.1	117	1.40	0.211	0.203	5.5	0.15	2086	4684	178	48	B	F	0.0082	41.9	0.79	721	8.6	11.3	0.21	2	12.4	0.1	0.00	0	0.0	0.0	0.00
45	58	4885	6.3	5.9	6.3	7.2	7.5	1.13	2.9	3.5	0.44	1.04	15.1	116	1.43	0.199	0.191	6.0	0.17	2254	4684	192	51	C	F	0.0107	52.4	0.90	1141	8.8	20.3	0.35	9	12.7	0.4	0.01	0	0.0	0.0	0.00
50	63	4684	6.8	6.4	6.8	7.7	8.0	1.18	3.0	3.8	0.43	1.15	16.9	115	1.46	0.190	0.183	6.5	0.19	2407	4684	203	54	C	F	0.0135	63.1	1.00	1530	9.0	31.0	0.49	31	12.8	1.6	0.03	3	14.2	0.2	0.00
55	68	4482	7.3	6.9	7.2	8.1	8.5	1.24	3.1	4.2	0.41	1.26	18.6	114	1.49	0.183	0.176	6.9	0.21	2544	4684	213	56	C	F	0.0165	74.1	1.09	1854	9.2	42.7	0.63	74	13.0	4.0	0.06	8	14.6	0.5	0.01
60	73	4280	7.8	7.3	7.6	8.6	8.9	1.29	3.1	4.6	0.40	1.37	20.2	113	1.53	0.178	0.171	7.3	0.23	2665	4684	221	59	C	F	0.0199	85.0	1.16	2104	9.4	54.8	0.75	142	13.1	8.3	0.11	22	14.7	1.4	0.02
65	78	4081	8.2	7.8	8.0	9.0	9.4	1.34	3.2	4.9	0.39	1.48	21.7	112	1.57	0.174	0.167	7.6	0.25	2770	4684	228	61	C	F	0.0234	95.6	1.23	2283	9.7	66.9	0.86	234	13.2	14.5	0.19	48	14.8	3.3	0.04
70	83	3887	8.7	8.2	8.4	9.4	9.8	1.39	3.3	5.2	0.38	1.60	23.0	111	1.60	0.171	0.164	7.8	0.27	2862	4684	232	62	C	F	0.0272	105.9	1.28	2401	10.0	78.7	0.95	343	13.4	22.5	0.27	88	14.9	6.4	0.08
75	88	3699	9.1	8.6	8.7	9.8	10.2	1.44	3.4	5.5	0.37	1.71	24.2	110	1.64	0.169	0.162	8.0	0.28	2940	4684	236	63	C	F	0.0313	115.8	1.32	2469	10.2	90.1	1.02	462	13.5	31.9	0.36	142	15.1	10.8	0.12
80	93	3519	9.6	9.0	9.0	10.1	10.5	1.49	3.5	5.8	0.37	1.83	25.2	108	1.69	0.167	0.160	8.2	0.29	3006	4684	239	64	C	F	0.0355	125.1	1.35	2499	10.5	101.0	1.09	583	13.7	42.5	0.46	207	15.2	16.6	0.18
85	98	3346	10.0	9.5	9.3	10.4	10.9	1.53	3.6	6.0	0.36	1.95	26.1	107	1.73	0.166	0.159	8.3	0.30	3061	4684	240	65	C	F	0.0400	133.9	1.37	2496	10.8	111.2	1.13	699	13.9	53.7	0.55	282	15.3	23.7	0.24
90	103	3181	10.4	9.8	9.6	10.7	11.2	1.58	3.6	6.2	0.36	2.07	26.9	106	1.77	0.165	0.159	8.4	0.31	3105	4684	241	66	C	F	0.0447	142.1	1.38	2471	11.1	120.8	1.17	807	14.1	65.1	0.63	361	15.5	31.8	0.31
95	108	3025	10.8	10.2	9.9	11.0	11.5	1.62	3.7	6.5	0.36	2.19	27.7	105	1.82	0.165	0.158	8.4	0.32	3142	4684	241	66	C	F	0.0495	149.8	1.39	2430	11.4	129.6	1.20	903	14.2	76.5	0.71	441	15.6	40.7	0.38
100	113	2878	11.2	10.6	10.2	11.3	11.8	1.67	3.8	6.7	0.35	2.32	28.3	104	1.86	0.165	0.159	8.5	0.33	3170	4684	241	67	C	F	0.0545	156.9	1.39	2376	11.7	137.8	1.22	985	14.4	87.6	0.78	519	15.8	50.0	0.44
105	118	2738	11.6	11.0	10.4	11.5	12.0	1.71	3.9	6.9	0.35	2.44	28.8	103	1.91	0.166	0.159	8.5	0.33	3191	4684	240	67	C	F	0.0596	163.3	1.38	2314	12.0	145.3	1.23	1054	14.6	98.1	0.83	593	15.9	59.7	0.51
110	123	2607	12.0	11.4	10.7	11.8	12.3	1.76	3.9	7.0	0.35	2.57	29.3	102	1.96	0.166	0.160	8.5	0.34	3207	4684	238	67	C	F	0.0649	169.3	1.38	2247	12.3	152.2	1.24	1110	14.8	108.1	0.88	661	16.1	69.3	0.56
115	128	2484	12.3	11.7	10.9	12.0	12.5	1.80	4.0	7.2	0.35	2.69	29.7	101	2.01	0.167	0.160	8.4	0.34	3218	4684	237	67	C	F	0.0703	174.7	1.36	2177	12.6	158.6	1.24	1153	15.0	117.5	0.92	721	16.3	78.8	0.62
120	133	2368	12.7	12.1	11.1	12.2	12.7	1.84	4.1	7.4	0.35	2.82	30.0	100	2.05	0.168	0.161	8.4	0.34	3224	4684	235	67	C	F	0.0758	179.6	1.35	2105	12.9	164.3	1.24	1185	15.2	126.1	0.95	774	16.4	88.0	0.66
125	138	2259	13.1	12.4	11.3	12.4	13.0	1.88	4.1	7.5	0.35	2.94	30.3	99	2.10	0.169	0.162	8.4	0.34	3226	4684	233	66	C	F	0.0815	184.1	1.33	2033	13.2	169.4	1.23	1207	15.4	134.0	0.97	819	16.6	96.8	0.70
130	143	2157	13.4	12.8	11.5	12.6	13.2	1.92	4.2	7.6	0.35	3.07	30.5	98	2.15	0.170	0.164	8.3	0.35	3225	4684	230	66	C	F	0.0872	188.1	1.32	1961	13.5	174.1	1.22	1221	15.7	141.2	0.99	856	16.8	105.1	0.73
135	148	2062	13.8	13.1	11.7	12.8	13.3	1.96	4.3	7.8	0.35	3.20	30.7	97	2.20	0.172	0.165	8.3	0.35	3222	4684	228	66	C	F	0.0930	191.8	1.30	1892	13.8	178.4	1.21	1228	15.9	147.9	1.00	886	17.0	112.9	0.76
140	153	1972	14.1	13.5	11.9	13.0	13.5	2.00	4.4	7.9	0.35	3.33	30.9	96	2.25	0.173	0.166	8.2	0.35	3216	4684	225	66	C	F	0.0989	195.0	1.27	1824	14.1	182.1	1.19	1228	16.1	153.8	1.01	910	17.2	120.2	0.79
145	158	1888	14.5	13.8	12.0	13.2	13.7	2.04	4.4	8.0	0.35	3.46	31.0	95	2.30	0.175	0.168	8.1	0.35	3208	4684	223	65	C	F	0.1048	197.9	1.25	1759	14.4	185.5	1.17	1223	16.3	159.2	1.01	928	17.4	127.0	0.80
150	163	1809	14.8	14.1	12.2	13.3	13.9	2.07	4.5	8.1	0.35	3.58	31.1	94	2.35	0.176	0.169	8.1	0.35	3199	4684	220	65	C	F	0.1108	200.4	1.23	1696	14.7	188.5	1.16	1214	16.5	164.0	1.01	940	17.6	133.2	0.82
155	168	1735	15.1	14.4	12.3	13.5	14.0	2.11	4.6	8.2	0.35	3.71	31.1	93	2.40	0.178	0.171	8.0	0.35	3188	4684	217	64	C	F	0.1168	202.7	1.21	1636	15.0	191.2	1.14	1201	16.7	168.3	1.00	948	17.7	138.9	0.83
160	173	1666	15.4	14.7	12.5	13.7	14.2	2.15	4.6	8.3	0.35	3.84	31.2	92	2.45	0.179	0.173	7.9	0.35	3177	4684	215	64	C	F	0.1229	204.7	1.18	1578	15.2	193.6	1.12	1186	17.0	172.2	1.00	953	17.9	144.3	0.83
165	178	1600	15.8	15.0	12.6	13.8	14.3	2.18	4.7	8.3	0.35	3.97	31.2	91	2.50	0.181	0.174	7.9	0.34	3165	4684	212	64	C	F	0.1290	206.4	1.16	1522	15.5	195.6	1.10	1168	17.2	175.5	0.99	953	18.1	149.0	0.84
170	183	1539	16.1	15.4	12.8	13.9	14.5	2.22	4.7	8.4	0.36	4.10	31.2	90	2.55	0.183	0.176	7.8	0.34	3152	4684	210	63	C	F	0.1351	207.9	1.14	1470	15.8	197.5	1.08	1150	17.4	178.6	0.98	951	18.3	153.4	0.84
175	188	1482	16.4	15.7	12.9	14.1	14.6	2.25	4.8	8.5	0.36	4.23	31.2	89	2.60	0.185	0.178	7.7	0.34	3139	4684	207	63	C	F	0.1412	209.3	1.11	1420	16.1	199.2	1.06	1130	17.6	181.4	0.96	946	18.5	157.3	0.84
180	193	1428	16.7	15.9	13.0	14.2	14.7	2.29	4.9	8.5	0.36	4.36	31.2	88	2.65	0.186	0.180	7.6	0.34	3126	4684	205	62	C	F	0.1473	210.4	1.09	1373	16.4	200.6	1.04	1109	17.9	183.7	0.95	940	18.7	161.0	0.83

Table A14. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 8 m Initial Density = 7000 stems/ha																																								
5	18	6973	0.9	0.8	1.7	2.0	2.0	0.67	1.3	0.3	0.79	0.35	0.4	249	1.20	0.601	0.584	0.4	0.00	837	5357	39	25	A	F	0.0000	0.3	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	23	6906	1.7	1.6	2.4	2.7	2.8	0.72	1.6	0.6	0.72	0.41	1.6	160	1.20	0.441	0.427	1.2	0.02	1029	5357	65	28	A	F	0.0003	1.9	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	28	6802	2.5	2.3	3.0	3.5	3.6	0.77	1.9	0.9	0.65	0.47	3.3	139	1.21	0.351	0.339	2.1	0.04	1242	5357	91	32	B	F	0.0007	5.0	0.18	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	33	6662	3.2	3.0	3.6	4.2	4.3	0.83	2.1	1.3	0.60	0.55	5.3	130	1.23	0.295	0.284	3.0	0.06	1464	5357	116	36	B	F	0.0015	9.9	0.30	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	38	6491	3.8	3.6	4.2	4.8	5.0	0.89	2.3	1.8	0.55	0.63	7.4	126	1.24	0.257	0.247	3.8	0.08	1687	5357	139	41	B	F	0.0025	16.5	0.43	5	8.3	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	43	6295	4.4	4.1	4.7	5.5	5.7	0.94	2.4	2.2	0.51	0.72	9.7	123	1.26	0.231	0.221	4.6	0.11	1904	5357	161	45	B	F	0.0039	24.7	0.57	71	8.3	0.9	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	48	6078	5.0	4.7	5.3	6.1	6.3	1.00	2.5	2.6	0.48	0.81	11.9	121	1.28	0.211	0.203	5.3	0.13	2111	5357	180	49	B	F	0.0056	34.1	0.71	298	8.4	4.0	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	53	5846	5.5	5.2	5.8	6.6	6.9	1.05	2.7	3.1	0.45	0.91	14.1	119	1.31	0.197	0.189	6.0	0.16	2303	5357	197	53	C	F	0.0076	44.5	0.84	679	8.5	10.2	0.19	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	58	5604	6.1	5.7	6.3	7.2	7.5	1.11	2.8	3.5	0.43	1.00	16.2	118	1.34	0.187	0.179	6.6	0.19	2478	5357	211	56	C	F	0.0099	55.5	0.96	1128	8.7	19.3	0.33	6	12.6	0.3	0.01	0	0.0	0.0	0.00
50	63	5357	6.6	6.2	6.7	7.7	8.0	1.16	2.9	3.9	0.42	1.11	18.1	117	1.37	0.178	0.171	7.1	0.21	2636	5357	223	59	C	F	0.0125	66.9	1.06	1562	8.8	30.3	0.48	21	12.8	1.1	0.02	2	14.0	0.1	0.00
55	68	5109	7.1	6.6	7.1	8.1	8.5	1.21	2.9	4.2	0.40	1.21	20.0	116	1.40	0.172	0.165	7.5	0.23	2776	5357	233	62	C	F	0.0153	78.4	1.15	1934	9.1	42.5	0.62	56	12.9	3.0	0.04	5	14.5	0.3	0.00
60	73	4863	7.5	7.1	7.5	8.6	8.9	1.26	3.0	4.6	0.39	1.32	21.6	115	1.43	0.167	0.160	7.9	0.25	2898	5357	242	64	C	F	0.0185	89.8	1.23	2227	9.3	55.2	0.76	116	13.0	6.7	0.09	16	14.6	1.0	0.01
65	78	4622	8.0	7.5	7.9	9.0	9.4	1.31	3.1	4.9	0.38	1.42	23.1	113	1.47	0.164	0.157	8.2	0.27	3004	5357	248	66	C	F	0.0218	100.9	1.29	2441	9.5	68.0	0.87	202	13.2	12.3	0.16	36	14.8	2.4	0.03
70	83	4389	8.4	8.0	8.3	9.4	9.8	1.36	3.2	5.2	0.37	1.54	24.5	112	1.51	0.161	0.154	8.4	0.29	3093	5357	253	67	C	F	0.0254	111.6	1.34	2586	9.8	80.5	0.97	308	13.3	19.8	0.24	70	14.9	5.0	0.06
75	88	4164	8.9	8.4	8.6	9.7	10.2	1.41	3.3	5.5	0.37	1.65	25.7	111	1.55	0.159	0.152	8.6	0.30	3169	5357	256	69	C	F	0.0293	121.8	1.38	2673	10.1	92.6	1.05	429	13.4	29.1	0.33	118	15.0	8.9	0.10
80	93	3948	9.3	8.8	8.9	10.1	10.5	1.46	3.4	5.8	0.36	1.76	26.8	110	1.59	0.158	0.151	8.8	0.31	3231	5357	258	70	C	F	0.0333	131.5	1.41	2712	10.3	104.1	1.12	554	13.6	39.6	0.43	180	15.1	14.2	0.15
85	98	3744	9.7	9.2	9.2	10.4	10.9	1.50	3.4	6.0	0.36	1.88	27.7	109	1.63	0.157	0.151	8.9	0.32	3282	5357	260	70	D	F	0.0376	140.6	1.43	2716	10.6	114.8	1.17	679	13.8	51.0	0.52	253	15.2	20.9	0.21
90	103	3550	10.1	9.6	9.5	10.7	11.2	1.55	3.5	6.2	0.35	1.99	28.5	108	1.68	0.157	0.150	9.0	0.33	3322	5357	260	71	D	F	0.0420	149.0	1.45	2692	10.9	124.9	1.21	796	13.9	62.8	0.61	332	15.4	28.7	0.28
95	108	3366	10.5	10.0	9.8	11.0	11.5	1.59	3.6	6.5	0.35	2.11	29.2	107	1.72	0.157	0.150	9.0	0.34	3353	5357	259	71	D	F	0.0466	156.8	1.45	2648	11.2	134.2	1.24	902	14.1	74.6	0.69	415	15.5	37.5	0.35
100	113	3194	10.9	10.4	10.1	11.2	11.8	1.64	3.7	6.7	0.35	2.23	29.8	106	1.77	0.157	0.151	9.0	0.35	3376	5357	258	71	D	F	0.0513	164.0	1.45	2590	11.5	142.7	1.26	995	14.3	86.2	0.76	497	15.7	46.9	0.42
105	118	3032	11.3	10.7	10.3	11.5	12.0	1.68	3.7	6.9	0.35	2.35	30.4	104	1.82	0.158	0.151	9.0	0.35	3392	5357	257	71	D	F	0.0563	170.6	1.45	2522	11.8	150.6	1.28	1074	14.5	97.4	0.83	576	15.8	56.6	0.48
110	123	2880	11.7	11.1	10.5	11.7	12.3	1.72	3.8	7.0	0.34	2.47	30.8	103	1.86	0.159	0.152	9.0	0.36	3402	5357	255	71	D	F	0.0614	176.7	1.44	2448	12.1	157.7	1.28	1139	14.7	108.0	0.88	650	16.0	66.6	0.54
115	128	2737	12.0	11.4	10.8	12.0	12.5	1.77	3.9	7.2	0.34	2.59	31.2	102	1.91	0.160	0.153	9.0	0.36	3407	5357	253	71	D	F	0.0665	182.1	1.42	2369	12.4	164.2	1.28	1190	14.9	117.9	0.92	717	16.1	76.4	0.60
120	133	2604	12.4	11.8	11.0	12.2	12.7	1.81	4.0	7.4	0.34	2.72	31.5	101	1.96	0.161	0.154	8.9	0.36	3408	5357	250	71	D	F	0.0719	187.1	1.41	2290	12.7	170.1	1.28	1229	15.1	127.1	0.96	776	16.3	86.0	0.65
125	138	2479	12.8	12.2	11.2	12.4	13.0	1.85	4.0	7.5	0.34	2.84	31.7	100	2.01	0.162	0.155	8.9	0.36	3405	5357	247	70	D	F	0.0772	191.5	1.39	2209	13.0	175.4	1.27	1257	15.3	135.5	0.98	827	16.5	95.2	0.69
130	143	2362	13.1	12.5	11.4	12.6	13.2	1.89	4.1	7.6	0.34	2.96	31.9	99	2.06	0.163	0.156	8.8	0.36	3399	5357	245	70	D	F	0.0828	195.5	1.37	2129	13.3	180.2	1.26	1275	15.5	143.2	1.00	870	16.6	104.0	0.73
135	148	2253	13.5	12.8	11.5	12.8	13.3	1.93	4.2	7.8	0.34	3.09	32.1	98	2.11	0.165	0.158	8.7	0.36	3390	5357	242	70	C	F	0.0884	199.1	1.35	2052	13.5	184.5	1.25	1285	15.7	150.2	1.01	905	16.8	112.2	0.76
140	153	2151	13.8	13.2	11.7	13.0	13.5	1.96	4.2	7.9	0.34	3.21	32.2	97	2.16	0.166	0.159	8.7	0.37	3379	5357	239	69	C	F	0.0940	202.3	1.32	1976	13.8	188.3	1.23	1288	15.9	156.5	1.02	933	17.0	119.9	0.78
145	158	2056	14.1	13.5	11.9	13.1	13.7	2.00	4.3	8.0	0.34	3.34	32.3	96	2.21	0.168	0.161	8.6	0.36	3366	5357	236	69	C	F	0.0998	205.2	1.30	1904	14.1	191.7	1.21	1286	16.1	162.3	1.03	955	17.2	127.1	0.80
150	163	1967	14.5	13.8	12.0	13.3	13.9	2.04	4.4	8.1	0.34	3.47	32.4	95	2.25	0.169	0.162	8.5	0.36	3353	5357	233	68	C	F	0.1056	207.7	1.27	1834	14.4	194.8	1.20	1278	16.3	167.4	1.03	971	17.4	133.8	0.82
155	168	1883	14.8	14.1	12.2	13.5	14.0	2.08	4.4	8.2	0.35	3.59	32.4	94	2.30	0.171	0.164	8.4	0.36	3338	5357	229	68	C	F	0.1114	209.8	1.25	1766	14.7	197.4	1.17	1266	16.5	171.9	1.02	982	17.6	139.8	0.83
160	173	1805	15.1	14.4	12.3	13.6	14.2	2.11	4.5	8.2	0.35	3.72	32.5	93	2.35	0.173	0.166	8.3	0.36	3322	5357	226	67	C	F	0.1173	211.8	1.22	1702	15.0	199.8	1.15	1251	16.8	176.0	1.02	989	17.8	145.5	0.84
165	178	1732	15.4	14.7	12.5	13.8	14.3	2.15	4.6	8.3	0.35	3.85	32.5	92	2.40	0.175	0.168	8.3	0.36	3306	5357	223	67	C	F	0.1233	213.5	1.20	1641	15.3	201.9	1.13	1234	17.0	179.6	1.01	991	17.9	150.5	0.85
170	183	1663	15.8	15.0	12.6	13.9	14.5	2.18	4.6	8.4	0.35	3.97	32.4	91	2.45	0.177	0.169	8.2	0.36	3289	5357	220	66	C	F	0.1292	214.8	1.17	1582	15.5	203.7	1.11	1214	17.2	182.8	1.00	990	18.1	155.1	0.85
175	188	1599	16.1	15.3	12.8	14.0	14.6	2.22	4.7	8.4	0.35	4.10	32.4	90	2.50	0.178	0.171	8.1	0.36	3272	5357	218	66	C	F	0.1351	216.1	1.15	1527	15.8	205.3	1.09	1194	17.4	185.6	0.99	987	18.3	159.4	0.85
180	193	1538	16.4	15.6	12.9	14.1	14.7	2.25	4.7	8.5	0.35	4.23	32.4	89	2.55	0.180	0.173	8.0	0.35	3255	5357	215	65	C	F	0.1411	217.0	1.12	1474	16.1	206.6	1.07	1172	17.6	188.1	0.97	981	18.5	163.1	0.85
SI = 8 m Initial Density = 7500 stems/ha																																								
5	18	7470	0.8	0.8	1.7	2.0	2.0	0.67	1.3	0.3	0.79	0.35	0.4	254	1.16	0.581	0.565	0.4	0.01	893	5688	42	26	A	F	0.0000	0.3	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	23	7396	1.7	1.6	2.4	2.7	2.8	0.72	1.6	0.6	0.71	0.40	1.7	163	1.16	0.426	0.412	1.3	0.02	1094	5688	68	30	A	F	0.0003	1.9	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	28	7280	2.4	2.3	3.0	3.5	3.6	0.77	1.8	1.0	0.65	0.47	3.4	140	1.17	0.339	0.327	2.2	0.04	1314	5688	95	34	B	F	0.0007	5.2	0.19	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	33	7125	3.1	2.9	3.6	4.2	4.3	0.82	2.0	1.4	0.59	0.54	5.4	131	1.18	0.285	0.274	3.1	0.06	1545	5688	121	39	B	F	0.0014	10.2	0.31	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	38	6936	3.8	3.5	4.2	4.8	5.0	0.88	2.2	1.8	0.54	0.62	7.7	127	1.20	0.249	0.239	4.0	0.09	1775	5688	146	43	B	F	0.0025	17.0	0.45	4	8.3	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	43	6719	4.4	4.1	4.7	5.5	5.7	0.94	2.4	2.2	0.51	0.71	10.0	124	1.22	0.223	0.214	4.8	0.11	1999	5688	168	47	B	F	0.0038	25.4	0.59	62	8.3	0.7	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	48	6480	4.9	4.6	5.3	6.1	6.3	0.99	2.5	2.7	0.48	0.80	12.3	122	1.24	0.205	0.196	5.6	0.14	2211	5688	188	52	C	F	0.0054	35.1	0.73	277	8.4	3.7	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	53	6225	5.5	5.1	5.8	6.6	6.9	1.05	2.6	3.1	0.45	0.89	14.6	120	1.27	0.191	0.183	6.2	0.17	2407	5688	206	55	C	F	0.0073	45.7	0.86	656	8.5	9.7	0.18	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	58	5959	6.0	5.6	6.2	7.2	7.5	1.10	2.7	3.5	0.43	0.99	16.7	119	1.30	0.181	0.173	6.8	0.19	2586	5688	220	59	C	F	0.0096	57.0	0.98	1116	8.6	18.7	0.32	5	12.6	0.2	0.00	0	0.0	0.0	0.00
50	63	5688	6.5	6.1	6.7	7.6	8.0	1.15	2.8	3.9	0.41	1.09	18.7	118	1.33	0.173	0.166	7.4	0.22	2745	5688	233	62	C	F	0.0121	68.6	1.09	1570	8.8	29.9	0.47	18	12.8	0.9	0.01	0	0.0	0.0	0.00
55	68	5417	7.0	6.6	7.1	8.1	8.5	1.20	2.9	4.2	0.40	1.19	20.6	117	1.36	0.167	0.160	7.8	0.24	2886	5688	243	64	C	F	0.0148	80.3	1.18	1965	9.0	42.3	0.62	49	12.9	2.6	0.04	4	14.5	0.2	0.00
60	73	5149	7.4	7.0	7.5	8.6	8.9	1.25	3.0	4.6	0.39	1.29	22.3	115	1.39	0.163	0.156	8.2	0.26	3009	5688	251	67	C	F	0.0179	92.0	1.26	2279	9.2	55.3	0.76	105	13.0	6.0	0.08	13	14.6	0.8	0.01
65	78	4887	7.9	7.4	7.9	9.0	9.4	1.30	3.1	4.9	0.38	1.40	23.8	114	1.43	0.160	0.152	8.5	0.28	3114	5688	258	68	C	F	0.0211	103.3	1.32	2511	9.5	68.4	0.88	187	13.1	11.3	0.14	31	14.7	2.1	0.03
70	83	4634	8.3	7.9	8.2	9.3	9.8	1.35	3.1	5.2	0.37	1.51	25.2	113	1.47	0.157	0.150	8.7	0.30	3203	5688	262	70	C	F	0.0246	114.2	1.38	2669	9.7	81.2	0.98	292	13.3	18.6	0.22	62	14.8	4.4	0.05
75	88	4390	8.8	8.3	8.6	9.7	10.2	1.40	3.2	5.5	0.36	1.62	26.4	112	1.51	0.155	0.148	8.9	0.31	3277	5688	266	71	D	F	0.0284	124.6	1.42	2765	10.0	93.6	1.06	412	13.4	27.7	0.31	108	14.9	8.1	0.09
80	93	4158	9.2	8.7	8.9	10.1	10.5	1.45	3.3	5.8	0.36	1.73	27.5	111	1.55	0.154	0.147	9.1	0.32	3337	5688	268	72	D	F	0.0323	134.4	1.44	2811	10.3	105.4	1.13	539	13.6	38.2	0.41	168	15.1	13.1	0.14
85	98	3937	9.6	9.1	9.2	10.4	10.9	1.49	3.4	6.0	0.35	1.84	28.4	110	1.59	0.154	0.147	9.2	0.33	3386	5688	269	73	D	F	0.0365	143.6	1.47	2818	10.5	116.4	1.19	667	13.7	49.6	0.51	239	15.2	19.6	0.20
90	103	3728	10.0	9.5	9.5	10.7	11.2	1.54	3.5	6.2	0.35	1.96	29.2	108	1.64	0.153	0.147	9.3	0.34	3424	5688	269	73	D	F	0.0408	152.1	1.48	2795	10.8	126.6	1.23	788	13.9	61.5	0.60	318	15.3	27.3	0.27
95	108	3532	10.4	9.9	9.7	11.0	11.5	1.58	3.5	6.5	0.35	2.07	30.0	107	1.68	0.153	0.147	9.3	0.35	3452	5688	268	73	D	F	0.0453	160.0	1.48	2751	11.1	136.2	1.26	899	14.1	73.6	0.68	402	15.5	36.0	0.33
100	113	3347	10.8	10.2	10.0	11.2	11.8	1.62	3.6	6.7	0.34	2.19	30.6	106	1.73	0.154	0.147	9.3	0.36	3473	5688	267	73	D	F	0.0500	167.3	1.48	2691	11.4	144.9	1.28	997	14.2	85.4	0.76	486	15.6	45.4	0.40
105	118	3174	11.2	10.6	10.2	11.5	12.0	1.67	3.7	6.9	0.34	2.31	31.1	105	1.77	0.154	0.148	9.3	0.36	3486	5688	265	73	D	F	0.0548	173.9	1.47	2621	11.7	152.9	1.30	1080	14.4	96.8	0.82	567	15.8	55.2	0.47
110	123	3011	11.5	11.0	10.5	11.7	12.3	1.71	3.8	7.0	0.34	2.43	31.5	104	1.82	0.155	0.149	9.3	0.37	3493	5688	263	73	D	F	0.0598	180.0	1.46	2542	12.0	160.1	1.30	1149	14.6	107.7	0.88	643	15.9	65.1	0.53
115	128	2859	11.9	11.3	10.7	12.0	12.5	1.75	3.8	7.2	0.34	2.55	31.9	103	1.87	0.156	0.149	9.2	0.37	3496	5688	260	73	D	F	0.0649	185.5	1.45	2460	12.3	166.7	1.30	1205	14.8	117.9	0.92	712	16.1	75.1	0.59
120	133	2718	12.3	11.7	10.9	12.2	12.7	1.79	3.9	7.4	0.34	2.67	32.2	102	1.92	0.157	0.151	9.2	0.37	3494	5688	257	73	D	F	0.0701	190.5	1.43	2377	12.6	172.7	1.30	1247	15.0	127.3	0.96	775	16.2	84.9	0.64
125	138	2585	12.6	12.0	11.1	12.4	13.0	1.83	4.0	7.5	0.34	2.79	32.4	101	1.97	0.159	0.152	9.1	0.37	3488	5688	254	72	D	F	0.0754	194.9	1.41	2293	12.8	178.1	1.29	1278	15.2	136.0	0.99	828	16.4	94.3	0.68
130	143	2461	13.0	12.4	11.3	12.6	13.2	1.87	4.0	7.6	0.34	2.92	32.6	100	2.02	0.160	0.153	9.0	0.37	3480	5688	251	72	D	F	0.0808	198.9	1.39	2210	13.1	182.9	1.28	1299	15.4	143.9	1.01	874	16.6	103.2	0.72
135	148	2346	13.3	12.7	11.5	12.8	13.3	1.91	4.1	7.8	0.34	3.04	32.8	99	2.06	0.162	0.155	9.0	0.37	3468	5688	248	71	D	F	0.0863	202.5	1.37	2129	13.4	187.3	1.27	1311	15.6	151.1	1.02	912	16.8	111.7	0.75
140	153	2238	13.7	13.0	11.7	13.0	13.5	1.95	4.2	7.9	0.34	3.16	32.9	98	2.11	0.163	0.156	8.9	0.37	3455	5688	245	71	D	F	0.0919	205.7	1.34	2049	13.7	191.1	1.25	1316	15.8	157.7	1.03	943	16.9	119.7	0.78
145	158	2137	14.0	13.4	11.8	13.1	13.7	1.99	4.2	8.0	0.34	3.29	32.9	96	2.16	0.165	0.158	8.8	0.37	3440	5688	242	70	D	F	0.0976	208.5	1.32	1973	14.0	194.6	1.23	1314	16.0	163.5	1.03	966	17.1	127.0	0.80
150	163	2043	14.3	13.7	12.0	13.3	13.9	2.02	4.3	8.1	0.34	3.41	33.0	95	2.21	0.167	0.159	8.7	0.37	3424	5688	238	70	C	F	0.1033	211.0	1.29	1899	14.3	197.6	1.21	1307	16.2	168.8	1.04	984	17.3	133.8	0.82
155	168	1955	14.7	14.0	12.1	13.4	14.0	2.06	4.4	8.2	0.34	3.54	33.0	94	2.26	0.168	0.161	8.6	0.37	3407	5688	235	69	C	F	0.1091	213.2	1.27	1829	14.6	200.3	1.19	1296	16.4	173.5	1.03	997	17.5	140.2	0.83
160	173	1873	15.0	14.3	12.3	13.6	14.2	2.10	4.4	8.2	0.34	3.66	33.1	93	2.31	0.170	0.163	8.5	0.37	3390	5688	232	69	C	F	0.1148	215.1	1.24	1762	14.8	202.7	1.17	1281	16.7	177.7	1.03	1005	17.7	145.9	0.84
165	178	1795	15.3	14.6	12.4	13.7	14.3	2.13	4.5	8.3	0.35	3.79	33.0	93	2.36	0.172	0.165	8.4	0.37	3371	5688	229	68	C	F	0.1207	216.6	1.22	1697	15.1	204.7	1.15	1263	16.9	181.3	1.02	1008	17.9	151.1	0.85
170	183	1723	15.6	14.9	12.6	13.9	14.5	2.17	4.6	8.4	0.35	3.92	33.0	92	2.41	0.174	0.166	8.4	0.37	3353	5688	226	67	C	F	0.1266	218.1	1.19	1636	15.4	206.5	1.13	1244	17.1	184.6	1.01	1008	18.1	155.9	0.85
175	188	1655	15.9	15.2	12.7	14.0	14.6	2.20	4.6	8.4	0.35	4.04	33.0	91	2.46	0.176	0.168	8.3	0.36	3334	5688	222	67	C	F	0.1324	219.2	1.17	1578	15.7	208.0	1.11	1223	17.3	187.5	1.00	1005	18.2	160.2	0.85
180	193	1592	16.2	15.5	12.8	14.1	14.7	2.24	4.7	8.5	0.35	4.17	32.9	90	2.51	0.177	0.170	8.2	0.36	3315	5688	220	66	C	F	0.1383	220.2	1.14	1523	15.9	209.4	1.08	1201	17.5	190.1	0.98	1000	18.4	164.1	0.85

Table A15. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
		SI = 8 m Initial Density = 8000 stems/ha																																						
5	18	7967	0.8	0.8	1.7	2.0	2.0	0.67	1.3	0.3	0.78	0.35	0.4	259	1.12	0.563	0.547	0.5	0.01	949	6017	44	28	A	F	0.0001	0.4	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	23	7886	1.7	1.5	2.3	2.7	2.8	0.71	1.5	0.6	0.71	0.40	1.7	165	1.13	0.413	0.399	1.3	0.02	1158	6017	72	32	B	F	0.0003	2.0	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	28	7758	2.4	2.2	3.0	3.5	3.6	0.76	1.8	1.0	0.64	0.46	3.5	142	1.14	0.329	0.317	2.3	0.04	1386	6017	100	36	B	F	0.0007	5.3	0.19	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	33	7588	3.1	2.9	3.6	4.2	4.3	0.82	2.0	1.4	0.59	0.53	5.6	133	1.15	0.276	0.266	3.2	0.06	1624	6017	127	41	B	F	0.0014	10.5	0.32	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	38	7380	3.7	3.5	4.1	4.8	5.0	0.87	2.2	1.8	0.54	0.61	7.9	128	1.16	0.241	0.232	4.1	0.09	1862	6017	153	45	B	F	0.0024	17.4	0.46	3	8.3	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	43	7142	4.3	4.0	4.7	5.5	5.7	0.93	2.3	2.2	0.50	0.70	10.3	125	1.18	0.217	0.208	5.0	0.12	2092	6017	176	50	B	F	0.0036	26.0	0.60	54	8.3	0.6	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	48	6880	4.8	4.5	5.2	6.1	6.3	0.98	2.5	2.7	0.47	0.78	12.7	123	1.21	0.199	0.191	5.8	0.14	2308	6017	196	54	C	F	0.0052	35.9	0.75	257	8.3	3.4	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	53	6601	5.4	5.1	5.7	6.6	6.9	1.04	2.6	3.1	0.45	0.88	15.0	121	1.23	0.186	0.178	6.5	0.17	2509	6017	214	58	C	F	0.0071	46.8	0.88	633	8.4	9.3	0.18	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	58	6311	5.9	5.5	6.2	7.1	7.5	1.09	2.7	3.5	0.42	0.97	17.2	120	1.26	0.176	0.168	7.1	0.20	2690	6017	229	61	C	F	0.0093	58.4	1.01	1102	8.6	18.2	0.31	4	12.5	0.2	0.00	0	0.0	0.0	0.00
50	63	6017	6.4	6.0	6.6	7.6	8.0	1.14	2.8	3.9	0.41	1.07	19.3	119	1.29	0.169	0.161	7.6	0.22	2852	6017	242	64	C	F	0.0117	70.2	1.11	1574	8.8	29.4	0.47	15	12.7	0.8	0.01	0	0.0	0.0	0.00
55	68	5722	6.9	6.5	7.1	8.1	8.5	1.19	2.8	4.2	0.39	1.17	21.2	117	1.32	0.163	0.156	8.1	0.25	2994	6017	253	67	C	F	0.0144	82.2	1.21	1990	9.0	42.0	0.62	43	12.9	2.3	0.03	4	14.3	0.2	0.00
60	73	5432	7.3	6.9	7.5	8.5	8.9	1.24	2.9	4.6	0.38	1.27	22.9	116	1.36	0.159	0.152	8.5	0.27	3117	6017	261	69	C	F	0.0173	94.0	1.29	2325	9.2	55.3	0.76	95	13.0	5.4	0.07	11	14.6	0.7	0.01
65	78	5149	7.8	7.3	7.8	9.0	9.4	1.29	3.0	4.9	0.37	1.38	24.5	115	1.39	0.156	0.149	8.8	0.29	3221	6017	267	71	D	F	0.0205	105.6	1.35	2575	9.4	68.7	0.88	174	13.1	10.5	0.13	27	14.7	1.8	0.02
70	83	4875	8.2	7.8	8.2	9.3	9.8	1.34	3.1	5.2	0.37	1.48	25.9	114	1.43	0.153	0.146	9.0	0.30	3309	6017	272	72	D	F	0.0239	116.6	1.40	2746	9.7	81.8	0.99	276	13.2	17.5	0.21	56	14.8	4.0	0.05
75	88	4613	8.6	8.2	8.5	9.7	10.2	1.39	3.2	5.5	0.36	1.59	27.1	113	1.47	0.152	0.145	9.2	0.32	3381	6017	275	73	D	F	0.0276	127.2	1.45	2852	9.9	94.5	1.07	395	13.4	26.4	0.30	99	14.9	7.3	0.08
80	93	4364	9.1	8.6	8.8	10.0	10.5	1.43	3.3	5.7	0.35	1.70	28.2	111	1.51	0.151	0.144	9.4	0.33	3440	6017	277	74	D	F	0.0314	137.1	1.47	2904	10.2	106.5	1.15	524	13.5	36.8	0.40	156	15.0	12.1	0.13
85	98	4127	9.5	9.0	9.1	10.4	10.9	1.48	3.3	6.0	0.35	1.81	29.1	110	1.56	0.150	0.143	9.5	0.34	3486	6017	277	75	D	F	0.0355	146.4	1.49	2915	10.5	117.8	1.20	654	13.7	48.2	0.49	226	15.2	18.4	0.19
90	103	3904	9.9	9.4	9.4	10.7	11.2	1.52	3.4	6.2	0.35	1.93	29.9	109	1.60	0.150	0.143	9.5	0.35	3521	6017	277	75	D	F	0.0397	155.1	1.51	2894	10.7	128.3	1.25	779	13.8	60.3	0.59	305	15.3	25.9	0.25
95	108	3694	10.3	9.7	9.7	10.9	11.5	1.57	3.5	6.5	0.34	2.04	30.6	108	1.65	0.150	0.143	9.6	0.36	3548	6017	276	75	D	F	0.0441	163.0	1.51	2849	11.0	138.0	1.28	894	14.0	72.5	0.67	389	15.4	34.5	0.32
100	113	3497	10.7	10.1	9.9	11.2	11.8	1.61	3.6	6.7	0.34	2.16	31.2	107	1.69	0.151	0.144	9.6	0.37	3565	6017	275	75	D	F	0.0487	170.4	1.51	2788	11.3	146.9	1.30	997	14.2	84.5	0.75	474	15.6	43.8	0.39
105	118	3313	11.0	10.5	10.2	11.5	12.0	1.65	3.6	6.9	0.34	2.27	31.8	106	1.74	0.151	0.145	9.6	0.37	3576	6017	273	75	D	F	0.0535	177.1	1.50	2715	11.6	155.0	1.31	1085	14.4	96.2	0.82	557	15.7	53.7	0.46
110	123	3140	11.4	10.9	10.4	11.7	12.3	1.70	3.7	7.0	0.34	2.39	32.2	104	1.78	0.152	0.145	9.5	0.37	3581	6017	270	75	D	F	0.0583	183.1	1.49	2634	11.9	162.4	1.32	1158	14.5	107.3	0.87	635	15.9	63.7	0.52
115	128	2979	11.8	11.2	10.6	11.9	12.5	1.74	3.8	7.2	0.34	2.51	32.5	103	1.83	0.153	0.146	9.5	0.38	3581	6017	267	75	D	F	0.0633	188.6	1.47	2549	12.2	169.1	1.32	1217	14.7	117.7	0.92	707	16.0	73.8	0.58
120	133	2829	12.2	11.6	10.8	12.2	12.7	1.78	3.8	7.4	0.34	2.63	32.8	102	1.88	0.155	0.148	9.4	0.38	3576	6017	264	74	D	F	0.0684	193.6	1.46	2462	12.5	175.1	1.32	1263	14.9	127.4	0.96	772	16.2	83.7	0.63
125	138	2689	12.5	11.9	11.0	12.4	13.0	1.82	3.9	7.5	0.34	2.75	33.1	101	1.93	0.156	0.149	9.3	0.38	3568	6017	261	74	D	F	0.0737	198.1	1.44	2374	12.7	180.6	1.31	1297	15.1	136.3	0.99	829	16.3	93.3	0.68
130	143	2558	12.9	12.2	11.2	12.6	13.2	1.86	4.0	7.6	0.34	2.87	33.2	100	1.98	0.157	0.150	9.3	0.38	3557	6017	258	73	D	F	0.0790	202.1	1.41	2287	13.0	185.5	1.30	1320	15.3	144.5	1.01	877	16.5	102.5	0.72
135	148	2436	13.2	12.6	11.4	12.8	13.3	1.90	4.1	7.8	0.34	2.99	33.4	99	2.03	0.159	0.152	9.2	0.38	3544	6017	254	73	D	F	0.0844	205.7	1.39	2202	13.3	189.8	1.28	1334	15.5	151.9	1.03	917	16.7	111.1	0.75
140	153	2323	13.5	12.9	11.6	12.9	13.5	1.93	4.1	7.9	0.34	3.12	33.5	98	2.07	0.160	0.153	9.1	0.38	3529	6017	251	72	D	F	0.0899	208.9	1.37	2120	13.6	193.8	1.27	1341	15.7	158.6	1.04	951	16.9	119.3	0.78
145	158	2217	13.9	13.2	11.8	13.1	13.7	1.97	4.2	8.0	0.34	3.24	33.6	97	2.12	0.162	0.155	9.0	0.38	3512	6017	248	72	D	F	0.0955	211.7	1.34	2040	13.9	197.3	1.25	1340	15.9	164.7	1.04	977	17.0	126.9	0.80
150	163	2117	14.2	13.5	11.9	13.3	13.9	2.01	4.3	8.1	0.34	3.36	33.6	96	2.17	0.164	0.157	8.9	0.38	3493	6017	244	71	D	F	0.1011	214.1	1.31	1963	14.2	200.3	1.23	1334	16.2	170.0	1.04	996	17.2	133.8	0.82
155	168	2025	14.5	13.9	12.1	13.4	14.0	2.05	4.3	8.2	0.34	3.49	33.6	95	2.22	0.166	0.158	8.8	0.38	3474	6017	241	71	D	F	0.1068	216.3	1.29	1890	14.5	203.0	1.21	1324	16.4	174.9	1.04	1010	17.4	140.3	0.84
160	173	1938	14.9	14.2	12.2	13.6	14.2	2.08	4.4	8.2	0.34	3.61	33.6	94	2.27	0.167	0.160	8.7	0.38	3455	6017	237	70	D	F	0.1125	218.1	1.26	1819	14.7	205.3	1.19	1309	16.6	179.1	1.04	1019	17.6	146.2	0.85
165	178	1857	15.2	14.5	12.4	13.7	14.3	2.12	4.5	8.3	0.34	3.74	33.6	93	2.32	0.169	0.162	8.6	0.37	3434	6017	234	69	C	F	0.1183	219.7	1.23	1752	15.0	207.4	1.17	1292	16.8	182.9	1.03	1023	17.8	151.5	0.85
170	183	1782	15.5	14.8	12.5	13.9	14.5	2.15	4.5	8.4	0.34	3.86	33.6	92	2.37	0.171	0.164	8.5	0.37	3414	6017	231	69	C	F	0.1241	221.1	1.21	1689	15.3	209.3	1.14	1273	17.0	186.4	1.02	1025	18.0	156.5	0.86
175	188	1711	15.8	15.1	12.6	14.0	14.6	2.19	4.6	8.4	0.35	3.99	33.5	91	2.42	0.173	0.165	8.4	0.37	3393	6017	227	68	C	F	0.1299	222.3	1.18	1628	15.6	210.8	1.12	1252	17.2	189.3	1.01	1023	18.2	161.0	0.86
180	193	1644	16.1	15.4	12.7	14.1	14.7	2.22	4.6	8.5	0.35	4.11	33.4	90	2.47	0.175	0.167	8.3	0.37	3373	6017	224	68	C	F	0.1357	223.1	1.16	1570	15.8	212.0	1.10	1229	17.4	191.8	0.99	1017	18.4	164.9	0.85
		SI = 8 m Initial Density = 9000 stems/ha																																						
5	18	8961	0.8	0.7	1.7	2.0	2.0	0.67	1.2	0.3	0.78	0.35	0.4	269	1.06	0.531	0.516	0.5	0.01	1060	6665	48	31	B	F	0.0000	0.4	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	23	8865	1.6	1.5	2.3	2.7	2.8	0.71	1.5	0.6	0.70	0.40	1.8	169	1.06	0.390	0.377	1.4	0.02	1284	6665	78	35	B	F	0.0002	2.1	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	28	8713	2.3	2.2	2.9	3.4	3.6	0.76	1.8	1.0	0.63	0.46	3.7	145	1.07	0.311	0.299	2.4	0.04	1528	6665	109	40	B	F	0.0006	5.5	0.20	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	33	8511	3.0	2.8	3.5	4.1	4.3	0.81	2.0	1.4	0.58	0.52	5.9	135	1.08	0.261	0.251	3.4	0.07	1780	6665	138	45	B	F	0.0013	10.9	0.33	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	38	8265	3.6	3.4	4.1	4.8	5.0	0.87	2.1	1.8	0.53	0.60	8.4	130	1.10	0.229	0.219	4.4	0.09	2031	6665	165	50	B	F	0.0022	18.3	0.48	2	8.2	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	43	7984	4.2	3.9	4.7	5.4	5.7	0.92	2.3	2.2	0.49	0.68	10.9	127	1.12	0.205	0.197	5.3	0.12	2272	6665	190	54	C	F	0.0034	27.2	0.63	41	8.3	0.5	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	48	7675	4.7	4.4	5.2	6.0	6.3	0.97	2.4	2.7	0.46	0.76	13.4	125	1.14	0.189	0.180	6.2	0.15	2499	6665	212	59	C	F	0.0049	37.6	0.78	221	8.3	2.8	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	53	7347	5.2	4.9	5.7	6.6	6.9	1.02	2.5	3.1	0.44	0.85	15.9	123	1.17	0.177	0.169	6.9	0.18	2706	6665	231	63	C	F	0.0067	48.9	0.92	586	8.4	8.4	0.16	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	58	7008	5.7	5.4	6.1	7.1	7.5	1.08	2.6	3.5	0.42	0.94	18.2	121	1.19	0.168	0.160	7.6	0.21	2892	6665	247	66	C	F	0.0087	60.9	1.05	1068	8.5	17.1	0.29	3	12.4	0.1	0.00	0	0.0	0.0	0.00
50	63	6665	6.2	5.9	6.6	7.6	8.0	1.13	2.7	3.9	0.40	1.04	20.3	120	1.22	0.161	0.153	8.1	0.24	3057	6665	260	69	C	F	0.0110	73.3	1.16	1572	8.7	28.4	0.45	11	12.7	0.5	0.01	0	0.0	0.0	0.00
55	68	6324	6.7	6.3	7.0	8.1	8.5	1.18	2.8	4.2	0.39	1.13	22.3	119	1.26	0.155	0.148	8.6	0.26	3200	6665	271	72	D	F	0.0136	85.7	1.26	2028	8.9	41.3	0.61	33	12.8	1.8	0.03	2	14.3	0.1	0.00
60	73	5988	7.2	6.7	7.4	8.5	8.9	1.22	2.8	4.6	0.38	1.23	24.1	117	1.29	0.152	0.144	9.0	0.28	3323	6665	279	74	D	F	0.0163	97.9	1.34	2402	9.1	55.0	0.75	78	12.9	4.4	0.06	8	14.5	0.5	0.01
65	78	5663	7.6	7.2	7.8	8.9	9.4	1.27	2.9	4.9	0.37	1.33	25.7	116	1.33	0.149	0.142	9.3	0.30	3426	6665	285	76	D	F	0.0194	109.8	1.41	2687	9.3	69.0	0.88	149	13.0	8.9	0.11	21	14.6	1.4	0.02
70	83	5349	8.0	7.6	8.1	9.3	9.8	1.32	3.0	5.2	0.36	1.44	27.1	115	1.37	0.147	0.140	9.6	0.32	3511	6665	289	77	D	F	0.0227	121.2	1.46	2885	9.6	82.7	1.00	246	13.2	15.4	0.19	45	14.7	3.1	0.04
75	88	5050	8.5	8.0	8.4	9.7	10.2	1.37	3.1	5.5	0.35	1.54	28.4	114	1.41	0.145	0.138	9.8	0.34	3580	6665	292	78	D	F	0.0261	132.0	1.50	3012	9.8	95.9	1.09	363	13.3	23.9	0.27	83	14.9	6.1	0.07
80	93	4767	8.9	8.4	8.7	10.0	10.5	1.41	3.2	5.7	0.35	1.65	29.5	113	1.45	0.145	0.138	9.9	0.35	3635	6665	294	79	D	F	0.0298	142.2	1.53	3078	10.1	108.5	1.17	493	13.4	34.1	0.37	136	15.0	10.4	0.11
85	98	4499	9.3	8.8	9.0	10.3	10.9	1.46	3.2	6.0	0.34	1.76	30.4	111	1.49	0.144	0.137	10.0	0.36	3677	6665	294	79	D	F	0.0337	151.7	1.55	3097	10.3	120.2	1.23	627	13.6	45.5	0.46	202	15.1	16.2	0.17
90	103	4247	9.7	9.2	9.3	10.6	11.2	1.50	3.3	6.2	0.34	1.87	31.2	110	1.53	0.144	0.137	10.0	0.37	3708	6665	293	79	D	F	0.0378	160.5	1.56	3080	10.6	131.1	1.27	758	13.7	57.7	0.56	279	15.2	23.4	0.23
95	108	4011	10.1	9.5	9.6	10.9	11.5	1.54	3.4	6.4	0.34	1.98	31.9	109	1.58	0.145	0.138	10.1	0.38	3729	6665	292	79	D	F	0.0421	168.7	1.56	3036	10.9	141.2	1.31	881	13.9	70.2	0.65	363	15.3	31.7	0.29
100	113	3790	10.5	9.9	9.8	11.2	11.8	1.59	3.5	6.7	0.34	2.09	32.5	108	1.62	0.145	0.138	10.1	0.38	3742	6665	290	79	D	F	0.0465	176.1	1.56	2972	11.1	150.4	1.33	992	14.1	82.6	0.73	449	15.5	40.9	0.36
105	118	3584	10.8	10.3	10.1	11.4	12.0	1.63	3.5	6.8	0.33	2.21	33.0	107	1.67	0.146	0.139	10.0	0.39	3748	6665	287	79	D	F	0.0510	182.9	1.55	2895	11.4	158.8	1.35	1088	14.3	94.7	0.80	536	15.6	50.8	0.43
110	123	3392	11.2	10.6	10.3	11.7	12.3	1.67	3.6	7.0	0.33	2.32	33.4	105	1.72	0.147	0.140	10.0	0.39	3747	6665	284	79	D	F	0.0557	189.0	1.54	2810	11.7	166.5	1.35	1170	14.4	106.3	0.86	618	15.8	60.9	0.50
115	128	3213	11.6	11.0	10.5	11.9	12.5	1.71	3.7	7.2	0.33	2.44	33.8	104	1.76	0.148	0.141	9.9	0.39	3742	6665	281	78	D	F	0.0606	194.6	1.52	2719	12.0	173.4	1.35	1237	14.6	117.2	0.92	695	15.9	71.2	0.56
120	133	3046	11.9	11.3	10.7	12.1	12.7	1.75	3.8	7.3	0.33	2.56	34.0	103	1.81	0.149	0.142	9.9	0.40	3733	6665	278	78	D	F	0.0655	199.6	1.50	2624	12.3	179.6	1.35	1290	14.8	127.4	0.96	765	16.1	81.4	0.61
125	138	2891	12.3	11.7	10.9	12.3	13.0	1.79	3.8	7.5	0.33	2.67	34.3	102	1.86	0.151	0.144	9.8	0.40	3720	6665	274	77	D	F	0.0706	204.1	1.48	2530	12.6	185.2	1.34	1330	15.0	136.7	0.99	826	16.2	91.2	0.66
130	143	2747	12.6	12.0	11.1	12.5	13.2	1.83	3.9	7.6	0.33	2.79	34.4	101	1.91	0.152	0.145	9.7	0.40	3705	6665	270	77	D	F	0.0758	208.1	1.46	2437	12.8	190.2	1.33	1358	15.2	145.3	1.02	880	16.4	100.8	0.70
135	148	2612	13.0	12.4	11.3	12.7	13.3	1.87	4.0	7.7	0.33	2.91	34.5	100	1.96	0.154	0.147	9.6	0.40	3687	6665	266	76	D	F	0.0810	211.6	1.43	2344	13.1	194.6	1.31	1376	15.4	153.1	1.03	925	16.6	109.8	0.74
140	153	2487	13.3	12.7	11.5	12.9	13.5	1.91	4.0	7.9	0.33	3.03	34.6	99	2.01	0.155	0.148	9.5	0.40	3667	6665	263	75	D	F	0.0864	214.8	1.40	2255	13.4	198.6	1.30	1386	15.6	160.2	1.05	962	16.7	118.2	0.77
145	158	2371	13.6	13.0	11.6	13.1	13.7	1.95	4.1	8.0	0.33	3.15	34.7	98	2.05	0.157	0.150	9.4	0.40	3646	6665	259	75	D	F	0.0918	217.6	1.38	2169	13.7	202.1	1.28	1388	15.8	166.5	1.05	992	16.9	126.2	0.80
150	163	2262	14.0	13.3	11.8	13.2	13.9	1.98	4.2	8.1	0.34	3.27	34.7	97	2.10	0.159	0.152	9.3	0.39	3624	6665	255	74	D	F	0.0973	220.0	1.35	2086	14.0	205.2	1.26	1384	16.0	172.2	1.06	1015	17.1	133.5	0.82
155	168	2161	14.3	13.6	11.9	13.4	14.0	2.02	4.2	8.2	0.34	3.40	34.7	96	2.15	0.161	0.153	9.2	0.39	3601	6665	251	73	D	F	0.1028	222.1	1.32	2007	14.2	208.0	1.24	1375	16.2	177.3	1.06	1033	17.3	140.3	0.84
160	173	2066	14.6	13.9	12.1	13.5	14.2	2.05	4.3	8.2	0.34	3.52	34.7	95	2.20	0.163	0.155	9.1	0.39	3578	6665	247	73	D	F	0.1084	223.9	1.29	1930	14.5	210.3	1.22	1361	16.4	181.7	1.05	1044	17.5	146.5	0.85
165	178	1978	14.9	14.2	12.2	13.7	14.3	2.09	4.4	8.3	0.34	3.64	34.6	94	2.25	0.164	0.157	9.0	0.39	3554	6665	244	72	D	F	0.1140	225.4	1.27	1858	14.8	212.4	1.19	1345	16.6	185.8	1.04	1051	17.6	152.2	0.86
170	183	1895	15.2	14.5	12.4	13.8	14.5	2.12	4.4	8.4	0.34	3.76	34.6	93	2.30	0.166	0.159	8.9	0.39	3530	6665	240	71	D	F	0.1196	226.7	1.24	1789	15.1	214.1	1.17	1326	16.8	189.3	1.03	1054	17.8	157.3	0.86
175	188	1818	15.5	14.8	12.5	13.9	14.6	2.16	4.5	8.4	0.34	3.88	34.5	92	2.35	0.168	0.161	8.8	0.38	3506	6665	236	71	D	F	0.1253	227.8	1.21	1724	15.3	215.7	1.15	1305	17.0	192.4	1.02	1053	18.0	162.0	0.86
180	193	1746	15.8	15.1	12.6	14.1	14.7	2.19	4.6	8.5	0.34	4.01	34.4	91	2.39	0.170	0.162	8.6	0.38	3483	6665	233	70	C	F	0.1310	228.7	1.18	1662	15.6	217.0	1.12	1282	17.3	195.2	1.01	1050	18.2	166.3	0.86

Table A16. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 8 m Initial Density = 10000 stems/ha																																								
5	18	9955	0.7	0.7	1.7	2.0	2.0	0.67	1.2	0.4	0.77	0.35	0.4	279	1.00	0.505	0.489	0.5	0.01	1171	7304	52	35	B	F	0.0000	0.4	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	23	9843	1.6	1.4	2.3	2.7	2.8	0.71	1.5	0.6	0.69	0.39	1.9	173	1.01	0.371	0.358	1.5	0.02	1409	7304	85	39	B	F	0.0002	2.1	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	28	9666	2.3	2.1	2.9	3.4	3.6	0.75	1.7	1.0	0.62	0.45	3.9	148	1.02	0.295	0.284	2.6	0.04	1668	7304	117	44	B	F	0.0006	5.7	0.20	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	33	9431	2.9	2.7	3.5	4.1	4.3	0.81	1.9	1.4	0.57	0.52	6.2	137	1.03	0.249	0.238	3.7	0.07	1934	7304	149	49	B	F	0.0012	11.4	0.35	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	38	9146	3.5	3.3	4.1	4.8	5.0	0.86	2.1	1.8	0.52	0.59	8.8	132	1.05	0.218	0.208	4.7	0.10	2196	7304	178	54	C	F	0.0021	19.0	0.50	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	43	8819	4.1	3.8	4.6	5.4	5.7	0.91	2.2	2.2	0.48	0.66	11.5	129	1.06	0.196	0.187	5.7	0.13	2448	7304	204	59	C	F	0.0032	28.4	0.66	31	8.2	0.4	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	48	8463	4.6	4.3	5.1	6.0	6.3	0.96	2.3	2.7	0.45	0.75	14.1	126	1.09	0.180	0.172	6.6	0.16	2682	7304	227	63	C	F	0.0046	39.1	0.81	190	8.2	2.4	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	53	8085	5.1	4.8	5.6	6.6	6.9	1.01	2.4	3.1	0.43	0.83	16.6	125	1.11	0.169	0.161	7.4	0.19	2896	7304	247	67	C	F	0.0063	50.9	0.96	540	8.3	7.5	0.14	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	58	7696	5.6	5.3	6.1	7.1	7.5	1.06	2.5	3.5	0.41	0.92	19.0	123	1.14	0.160	0.152	8.0	0.22	3087	7304	263	71	D	F	0.0082	63.3	1.09	1029	8.5	16.1	0.28	2	12.3	0.1	0.00	0	0.0	0.0	0.00
50	63	7304	6.1	5.7	6.5	7.6	8.0	1.11	2.6	3.9	0.39	1.01	21.3	121	1.17	0.154	0.146	8.6	0.25	3254	7304	277	74	D	F	0.0104	76.1	1.21	1559	8.6	27.4	0.43	8	12.6	0.4	0.01	0	0.0	0.0	0.00
55	68	6915	6.6	6.2	6.9	8.1	8.5	1.16	2.7	4.2	0.38	1.10	23.3	120	1.20	0.149	0.142	9.1	0.28	3397	7304	288	76	D	F	0.0129	88.9	1.31	2051	8.8	40.5	0.60	26	12.8	1.4	0.02	2	14.1	0.1	0.00
60	73	6534	7.0	6.6	7.3	8.5	8.9	1.21	2.8	4.6	0.37	1.20	25.2	119	1.24	0.145	0.138	9.5	0.30	3519	7304	296	78	D	F	0.0155	101.5	1.39	2463	9.0	54.6	0.75	64	12.9	3.6	0.05	6	14.4	0.4	0.01
65	78	6166	7.4	7.0	7.7	8.9	9.4	1.26	2.8	4.9	0.36	1.30	26.8	117	1.27	0.143	0.136	9.8	0.32	3620	7304	302	80	D	F	0.0184	113.7	1.46	2781	9.2	69.1	0.89	129	13.0	7.6	0.10	16	14.6	1.0	0.01
70	83	5813	7.9	7.4	8.0	9.3	9.8	1.30	2.9	5.2	0.35	1.40	28.3	116	1.31	0.141	0.134	10.1	0.34	3703	7304	306	81	D	F	0.0216	125.4	1.51	3008	9.5	83.3	1.00	220	13.1	13.6	0.16	36	14.7	2.5	0.03
75	88	5477	8.3	7.8	8.4	9.7	10.2	1.35	3.0	5.5	0.35	1.50	29.6	115	1.35	0.140	0.133	10.3	0.35	3768	7304	309	82	D	F	0.0249	136.5	1.55	3155	9.7	97.0	1.10	333	13.2	21.7	0.25	70	14.8	5.1	0.06
80	93	5159	8.7	8.2	8.7	10.0	10.5	1.39	3.1	5.7	0.34	1.60	30.7	114	1.39	0.139	0.132	10.4	0.36	3819	7304	310	83	D	F	0.0285	146.9	1.58	3235	9.9	110.0	1.18	462	13.4	31.6	0.34	118	14.9	9.0	0.10
85	98	4861	9.1	8.6	9.0	10.3	10.9	1.44	3.2	6.0	0.34	1.71	31.6	112	1.43	0.139	0.132	10.5	0.38	3856	7304	310	83	D	F	0.0322	156.6	1.60	3264	10.2	122.2	1.25	599	13.5	42.9	0.44	181	15.0	14.3	0.15
90	103	4580	9.5	9.0	9.2	10.6	11.2	1.48	3.2	6.2	0.34	1.82	32.4	111	1.48	0.139	0.132	10.5	0.38	3883	7304	309	83	D	F	0.0361	165.5	1.61	3251	10.5	133.5	1.30	735	13.7	55.1	0.53	255	15.2	21.1	0.20
95	108	4319	9.9	9.4	9.5	10.9	11.5	1.52	3.3	6.4	0.33	1.93	33.2	110	1.52	0.140	0.133	10.5	0.39	3899	7304	307	83	D	F	0.0402	173.8	1.61	3209	10.7	144.0	1.33	864	13.8	67.8	0.63	338	15.3	29.1	0.27
100	113	4074	10.3	9.7	9.8	11.2	11.8	1.57	3.4	6.6	0.33	2.04	33.7	109	1.57	0.140	0.133	10.5	0.40	3907	7304	304	83	D	F	0.0445	181.3	1.60	3144	11.0	153.5	1.36	982	14.0	80.5	0.71	425	15.4	38.2	0.34
105	118	3847	10.6	10.1	10.0	11.4	12.0	1.61	3.5	6.8	0.33	2.15	34.2	108	1.61	0.141	0.134	10.5	0.40	3908	7304	301	83	D	F	0.0489	188.2	1.59	3065	11.3	162.2	1.37	1087	14.2	93.0	0.79	514	15.5	48.0	0.41
110	123	3635	11.0	10.5	10.2	11.7	12.3	1.65	3.5	7.0	0.33	2.26	34.6	106	1.66	0.142	0.135	10.4	0.41	3903	7304	298	82	D	F	0.0535	194.4	1.58	2974	11.6	170.0	1.38	1176	14.3	104.9	0.85	599	15.7	58.1	0.47
115	128	3439	11.4	10.8	10.4	11.9	12.5	1.69	3.6	7.2	0.33	2.38	34.9	105	1.71	0.143	0.136	10.4	0.41	3894	7304	294	82	D	F	0.0582	200.0	1.56	2878	11.8	177.1	1.38	1251	14.5	116.3	0.91	680	15.8	68.6	0.54
120	133	3256	11.7	11.1	10.6	12.1	12.7	1.73	3.7	7.3	0.33	2.49	35.2	104	1.75	0.145	0.138	10.3	0.41	3880	7304	290	81	D	F	0.0630	205.0	1.54	2779	12.1	183.5	1.38	1310	14.7	126.9	0.95	754	16.0	78.9	0.59
125	138	3087	12.1	11.5	10.8	12.3	13.0	1.77	3.7	7.5	0.33	2.61	35.4	103	1.80	0.146	0.139	10.2	0.41	3863	7304	286	80	D	F	0.0679	209.6	1.52	2679	12.4	189.3	1.37	1356	14.9	136.7	0.99	821	16.1	89.1	0.65
130	143	2929	12.4	11.8	11.0	12.5	13.2	1.81	3.8	7.6	0.33	2.72	35.5	102	1.85	0.148	0.140	10.1	0.41	3843	7304	282	80	D	F	0.0729	213.5	1.49	2578	12.7	194.4	1.36	1389	15.1	145.7	1.02	879	16.3	98.9	0.69
135	148	2782	12.8	12.2	11.2	12.7	13.3	1.85	3.9	7.7	0.33	2.84	35.6	101	1.90	0.149	0.142	10.0	0.41	3821	7304	278	79	D	F	0.0780	217.0	1.47	2480	13.0	198.9	1.34	1412	15.3	153.9	1.04	928	16.5	108.1	0.73
140	153	2646	13.1	12.5	11.4	12.9	13.5	1.88	4.0	7.8	0.33	2.96	35.7	100	1.94	0.151	0.144	9.9	0.41	3797	7304	273	78	D	F	0.0832	220.2	1.44	2384	13.2	202.9	1.33	1425	15.5	161.3	1.05	970	16.6	117.0	0.76
145	158	2520	13.4	12.8	11.5	13.0	13.7	1.92	4.0	8.0	0.33	3.08	35.7	99	1.99	0.153	0.145	9.7	0.41	3772	7304	269	78	D	F	0.0885	223.0	1.41	2293	13.5	206.6	1.31	1430	15.7	168.0	1.06	1004	16.8	125.3	0.79
150	163	2402	13.8	13.1	11.7	13.2	13.9	1.96	4.1	8.1	0.33	3.19	35.7	98	2.04	0.155	0.147	9.6	0.41	3746	7304	265	77	D	F	0.0938	225.3	1.38	2204	13.8	209.7	1.29	1428	15.9	173.9	1.07	1031	17.0	132.9	0.82
155	168	2292	14.1	13.4	11.8	13.4	14.0	1.99	4.2	8.1	0.33	3.31	35.7	97	2.09	0.156	0.149	9.5	0.40	3720	7304	261	76	D	F	0.0992	227.4	1.35	2118	14.1	212.4	1.26	1421	16.1	179.3	1.07	1051	17.2	140.0	0.83
160	173	2190	14.4	13.7	12.0	13.5	14.2	2.03	4.2	8.2	0.33	3.43	35.6	96	2.14	0.158	0.151	9.4	0.40	3693	7304	257	75	D	F	0.1047	229.2	1.32	2037	14.3	214.8	1.24	1409	16.3	184.0	1.06	1065	17.3	146.5	0.85
165	178	2094	14.7	14.0	12.1	13.6	14.3	2.06	4.3	8.3	0.33	3.55	35.6	94	2.19	0.160	0.152	9.3	0.40	3666	7304	253	74	D	F	0.1101	230.6	1.30	1960	14.6	216.8	1.22	1393	16.5	188.2	1.06	1074	17.5	152.4	0.86
170	183	2005	15.0	14.3	12.2	13.8	14.5	2.10	4.4	8.4	0.34	3.67	35.5	94	2.23	0.162	0.154	9.2	0.40	3639	7304	249	74	D	F	0.1157	231.9	1.27	1886	14.9	218.6	1.19	1374	16.7	191.9	1.05	1079	17.7	157.8	0.86
175	188	1922	15.3	14.6	12.4	13.9	14.6	2.13	4.4	8.4	0.34	3.79	35.4	93	2.28	0.164	0.156	9.1	0.39	3612	7304	245	73	D	F	0.1212	232.9	1.24	1816	15.1	220.2	1.17	1353	16.9	195.1	1.04	1081	17.9	162.8	0.87
180	193	1844	15.6	14.9	12.5	14.0	14.7	2.17	4.5	8.5	0.34	3.92	35.3	92	2.33	0.166	0.158	8.9	0.39	3585	7304	241	72	D	F	0.1268	233.8	1.21	1750	15.4	221.4	1.15	1331	17.1	198.0	1.03	1078	18.1	167.2	0.87
SI = 8 m Initial Density = 15000 stems/ha																																								
5	18	14921	0.6	0.6	1.6	2.0	2.0	0.66	1.2	0.4	0.74	0.35	0.5	326	0.82	0.414	0.399	0.6	0.01	1717	10386	73	52	C	F	0.0000	0.4	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00	.	0.0	0.0	0.00
10	23	14724	1.4	1.3	2.2	2.7	2.8	0.70	1.4	0.7	0.66	0.38	2.2	190	0.82	0.304	0.292	1.9	0.03	2020	10386	115	56	C	F	0.0002	2.4	0.10	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	28	14412	2.0	1.9	2.8	3.4	3.6	0.74	1.6	1.0	0.59	0.43	4.7	159	0.83	0.243	0.233	3.3	0.05	2341	10386	157	62	C	F	0.0005	6.6	0.24	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	33	13998	2.6	2.4	3.4	4.1	4.3	0.78	1.7	1.4	0.54	0.49	7.5	147	0.85	0.205	0.196	4.7	0.09	2664	10386	197	68	C	F	0.0009	13.2	0.40	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	38	13499	3.2	3.0	3.9	4.8	5.0	0.83	1.9	1.8	0.49	0.55	10.7	140	0.86	0.180	0.171	6.0	0.13	2976	10386	234	74	D	F	0.0016	22.1	0.58	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	43	12934	3.7	3.5	4.5	5.4	5.7	0.87	2.0	2.3	0.46	0.61	13.8	136	0.88	0.163	0.154	7.2	0.16	3267	10386	267	79	D	F	0.0025	32.9	0.76	7	8.1	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	48	12322	4.2	3.9	4.9	6.0	6.3	0.92	2.1	2.7	0.43	0.68	17.0	133	0.90	0.150	0.142	8.3	0.20	3532	10386	295	84	D	F	0.0037	45.3	0.94	92	8.1	1.1	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	53	11683	4.7	4.4	5.4	6.5	6.9	0.97	2.2	3.1	0.40	0.76	20.0	131	0.93	0.141	0.134	9.3	0.24	3766	10386	319	88	D	F	0.0050	58.8	1.11	358	8.1	4.6	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	58	11033	5.1	4.8	5.9	7.1	7.5	1.01	2.2	3.5	0.38	0.83	22.8	129	0.95	0.135	0.127	10.1	0.27	3968	10386	338	92	D	F	0.0066	73.0	1.26	770	8.3	11.2	0.19	0	0.0	0.0	0.00	0	0.0	0.0	0.00
50	63	10386	5.6	5.2	6.3	7.5	8.0	1.06	2.3	3.8	0.37	0.91	25.4	127	0.98	0.130	0.123	10.7	0.31	4138	10386	353	95	D	F	0.0084	87.4	1.39	1398	8.4	22.2	0.35	1	12.5	0.1	0.00	0	0.0	0.0	0.00
55	68	9753	6.0	5.7	6.7	8.0	8.5	1.10	2.4	4.2	0.36	0.99	27.7	125	1.01	0.126	0.119	11.3	0.34	4279	10386	364	97	D	F	0.0104	101.8	1.50	1961	8.6	35.2	0.52	7	12.6	0.4	0.01	0	0.0	0.0	0.00
60	73	9143	6.4	6.1	7.0	8.4	8.9	1.15	2.5	4.5	0.35	1.08	29.8	124	1.05	0.124	0.117	11.7	0.36	4392	10386	372	99	D	F	0.0127	115.8	1.59	2617	8.7	51.1	0.70	25	12.7	1.4	0.02	1	14.4	0.1	0.00
65	78	8561	6.9	6.5	7.4	8.8	9.4	1.19	2.6	4.8	0.34	1.17	31.6	122	1.08	0.122	0.115	12.1	0.38	4479	10386	377	100	D	F	0.0151	129.3	1.66	3052	8.9	66.9	0.86	62	12.8	3.5	0.04	5	14.4	0.3	0.00
70	83	8010	7.3	6.9	7.7	9.2	9.8	1.24	2.6	5.1	0.33	1.26	33.2	121	1.12	0.121	0.114	12.3	0.40	4545	10386	380	101	D	F	0.0178	142.2	1.71	3389	9.1	82.9	1.00	123	12.9	7.4	0.09	13	14.5	0.9	0.01
75	88	7492	7.7	7.2	8.0	9.6	10.2	1.28	2.7	5.4	0.33	1.35	34.5	119	1.16	0.121	0.114	12.5	0.42	4592	10386	381	101	D	F	0.0206	154.3	1.75	3628	9.3	98.5	1.12	212	13.0	13.3	0.15	30	14.6	2.1	0.02
80	93	7009	8.1	7.6	8.3	9.9	10.5	1.32	2.8	5.7	0.32	1.44	35.7	118	1.19	0.121	0.114	12.6	0.43	4622	10386	380	101	D	F	0.0236	165.5	1.78	3886	9.5	114.4	1.23	326	13.2	21.4	0.23	59	14.7	4.3	0.05
85	98	6560	8.4	8.0	8.6	10.2	10.9	1.36	2.9	5.9	0.32	1.54	36.7	117	1.23	0.121	0.114	12.6	0.44	4637	10386	378	101	D	F	0.0268	175.9	1.79	3957	9.7	128.3	1.31	459	13.3	31.3	0.32	104	14.8	7.9	0.08
90	103	6143	8.8	8.3	8.9	10.5	11.2	1.41	2.9	6.1	0.32	1.63	37.5	115	1.28	0.121	0.114	12.6	0.45	4641	10386	375	100	D	F	0.0302	185.5	1.80	3970	10.0	141.3	1.37	601	13.4	42.9	0.42	162	14.9	12.8	0.12
95	108	5757	9.2	8.7	9.1	10.8	11.5	1.45	3.0	6.4	0.31	1.73	38.2	114	1.32	0.122	0.115	12.6	0.46	4635	10386	371	100	D	F	0.0337	194.2	1.80	3939	10.2	153.3	1.42	746	13.6	55.5	0.51	234	15.0	19.2	0.18
100	113	5400	9.6	9.1	9.4	11.1	11.8	1.49	3.1	6.6	0.31	1.83	38.7	113	1.36	0.123	0.116	12.5	0.47	4621	10386	367	99	D	F	0.0374	202.2	1.79	3876	10.5	164.2	1.45	889	13.7	68.8	0.61	316	15.2	27.0	0.24
105	118	5072	9.9	9.4	9.6	11.3	12.0	1.53	3.2	6.8	0.31	1.94	39.1	111	1.40	0.124	0.117	12.4	0.47	4600	10386	362	98	D	F	0.0413	209.4	1.77	3790	10.7	174.1	1.48	1021	13.9	82.3	0.70	406	15.3	35.8	0.30
110	123	4768	10.3	9.7	9.8	11.5	12.3	1.57	3.2	6.9	0.31	2.04	39.5	110	1.45	0.125	0.118	12.3	0.47	4573	10386	356	97	D	F	0.0453	215.8	1.75	3686	11.0	183.0	1.49	1141	14.0	95.7	0.78	498	15.4	45.6	0.37
115	128	4488	10.6	10.1	10.0	11.8	12.5	1.61	3.3	7.1	0.31	2.14	39.7	109	1.49	0.127	0.119	12.2	0.47	4543	10386	350	96	D	F	0.0494	221.6	1.73	3570	11.3	191.0	1.49	1245	14.2	108.6	0.85	589	15.5	56.0	0.44
120	133	4231	11.0	10.4	10.2	12.0	12.7	1.64	3.4	7.3	0.31	2.25	39.9	108	1.54	0.128	0.121	12.1	0.47	4509	10386	345	95	D	F	0.0536	226.7	1.70	3450	11.5	198.2	1.49	1336	14.3	120.9	0.91	678	15.7	66.7	0.50
125	138	3992	11.3	10.7	10.4	12.2	13.0	1.68	3.4	7.4	0.31	2.35	40.0	106	1.58	0.130	0.122	11.9	0.47	4472	10386	339	94	D	F	0.0579	231.3	1.68	3326	11.8	204.6	1.48	1410	14.5	132.5	0.96	761	15.8	77.5	0.56
130	143	3773	11.6	11.1	10.6	12.4	13.2	1.72	3.5	7.5	0.31	2.46	40.1	105	1.63	0.132	0.124	11.8	0.47	4433	10386	333	93	D	F	0.0624	235.3	1.65	3203	12.0	210.3	1.47	1470	14.7	143.2	1.00	838	16.0	88.2	0.62
135	148	3570	12.0	11.4	10.7	12.6	13.3	1.76	3.6	7.7	0.31	2.57	40.1	104	1.67	0.133	0.125	11.6	0.47	4393	10386	327	92	D	F	0.0669	238.9	1.61	3079	12.3	215.3	1.45	1515	14.8	153.1	1.03	907	16.1	98.6	0.67
140	153	3382	12.3	11.7	10.9	12.7	13.5	1.79	3.6	7.8	0.31	2.68	40.1	103	1.72	0.135	0.127	11.4	0.47	4352	10386	321	90	D	F	0.0715	241.9	1.58	2956	12.6	219.7	1.44	1546	15.0	162.1	1.06	965	16.3	108.6	0.71
145	158	3209	12.6	12.0	11.1	12.9	13.7	1.83	3.7	7.9	0.31	2.78	40.0	102	1.77	0.137	0.129	11.3	0.47	4310	10386	315	89	D	F	0.0762	244.6	1.55	2841	12.8	223.6	1.42	1569	15.2	170.3	1.08	1018	16.4	118.1	0.75
150	163	3048	12.9	12.3	11.2	13.1	13.9	1.86	3.8	8.0	0.32	2.89	40.0	101	1.81	0.139	0.131	11.1	0.46	4269	10386	309	88	D	F	0.0810	246.9	1.51	2728	13.1	227.0	1.39	1581	15.4	177.6	1.09	1061	16.6	127.1	0.78
155	168	2899	13.2	12.6	11.4	13.2	14.0	1.90	3.8	8.1	0.32	3.00	39.9	100	1.86	0.141	0.132	11.0	0.46	4227	10386	304	87	D	F	0.0858	248.8	1.48	2619	13.3	229.9	1.37	1584	15.6	184.2	1.10	1096	16.7	135.5	0.81
160	173	2760	13.5	12.9	11.5	13.4	14.2	1.93	3.9	8.2	0.32	3.11	39.7	99	1.90	0.142	0.134	10.8	0.46	4185	10386	298	86	D	F	0.0907	250.4	1.45	2518	13.6	232.4	1.34	1584	15.8	190.1	1.10	1126	16.9	143.3	0.83
165	178	2631	13.8	13.2	11.6	13.5	14.3	1.97	4.0	8.2	0.32	3.23	39.6	98	1.95	0.144	0.136	10.6	0.45	4144	10386	293	85	D	F	0.0957	251.7	1.41	2416	13.9	234.6	1.32	1573	15.9	195.3	1.10	1146	17.0	150.5	0.85
170	183	2512	14.1	13.5	11.8	13.6	14.5	2.00	4.0	8.3	0.32	3.34	39.5	96	2.00	0.146	0.138	10.5	0.45	4104	10386	288	84	D	F	0.1006	252.8	1.38	2323	14.1	236.4	1.29	1561	16.1	199.9	1.09	1162	17.2	157.1	0.86
175	188	2400	14.4	13.8	11.9	13.8	14.6	2.03	4.1	8.4	0.32	3.45	39.3	95	2.04	0.148	0.140	10.3	0.44	4064	10386	283	83	D	F	0.1057	253.6	1.35	2231	14.4	237.9	1.27	1542	16.3	204.0	1.09	1171	17.4	163.1	0.87
180	193	2296	14.7	14.0	12.0	13.9	14.7	2.07	4.2	8.4	0.32	3.56	39.1	94	2.09	0.150	0.142	10.2	0.44	4025	10386	278	82	D	F	0.1108	254.3	1.32	2147	14.6	239.2	1.24	1522	16.5	207.5	1.08	1178	17.5	168.6	0.87

Table A17. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 8 m Initial Density = 20000 stems/ha																																								
5	18	19884	0.6	0.5	1.6	2.0	2.0	0.66	1.1	0.4	0.72	0.34	0.5	365	0.71	0.360	0.346	0.7	0.01	2256	13334	92	68	C	F	0.0000	0.4	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	23	19593	1.3	1.2	2.2	2.7	2.8	0.69	1.3	0.7	0.64	0.38	2.5	203	0.71	0.265	0.253	2.2	0.03	2615	13334	143	74	D	F	0.0001	2.7	0.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	28	19133	1.9	1.7	2.7	3.4	3.6	0.73	1.5	1.1	0.57	0.42	5.3	168	0.72	0.212	0.202	3.9	0.06	2986	13334	194	80	D	F	0.0004	7.3	0.26	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	33	18523	2.4	2.3	3.3	4.1	4.3	0.77	1.6	1.5	0.52	0.47	8.6	154	0.73	0.179	0.170	5.5	0.10	3353	13334	242	86	D	F	0.0008	14.6	0.44	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	38	17791	2.9	2.8	3.8	4.8	5.0	0.81	1.7	1.9	0.47	0.52	12.2	146	0.75	0.158	0.149	7.1	0.15	3702	13334	285	93	D	F	0.0014	24.5	0.64	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	43	16968	3.4	3.2	4.3	5.4	5.7	0.85	1.8	2.3	0.43	0.58	15.8	141	0.77	0.143	0.135	8.5	0.19	4021	13334	323	98	D	F	0.0021	36.4	0.85	2	8.1	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	48	16083	3.9	3.7	4.8	6.0	6.3	0.89	1.9	2.7	0.41	0.64	19.4	138	0.79	0.132	0.125	9.8	0.23	4304	13334	355	103	D	F	0.0031	50.1	1.04	43	8.0	0.5	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	53	15167	4.4	4.1	5.3	6.5	6.9	0.94	2.0	3.1	0.38	0.71	22.7	135	0.81	0.125	0.117	10.9	0.28	4547	13334	382	108	D	F	0.0043	64.9	1.22	224	8.0	2.7	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	58	14244	4.8	4.5	5.7	7.0	7.5	0.98	2.1	3.5	0.37	0.78	25.9	133	0.84	0.119	0.112	11.8	0.32	4751	13334	403	111	D	F	0.0056	80.4	1.39	648	8.1	8.5	0.15	0	0.0	0.0	0.00	0	0.0	0.0	0.00
50	63	13334	5.2	4.9	6.1	7.5	8.0	1.02	2.2	3.8	0.35	0.85	28.7	131	0.87	0.115	0.108	12.5	0.35	4917	13334	419	113	D	F	0.0072	96.1	1.53	1187	8.2	17.6	0.28	0	0.0	0.0	0.00	0	0.0	0.0	0.00
55	68	12453	5.7	5.3	6.5	8.0	8.5	1.07	2.2	4.2	0.34	0.93	31.2	129	0.90	0.113	0.106	13.1	0.39	5048	13334	430	115	D	F	0.0090	111.6	1.64	1948	8.3	31.3	0.46	2	12.5	0.1	0.00	0	0.0	0.0	0.00
60	73	11611	6.1	5.7	6.8	8.4	8.9	1.11	2.3	4.5	0.33	1.00	33.5	127	0.93	0.111	0.104	13.6	0.41	5147	13334	438	117	D	F	0.0109	126.7	1.74	2576	8.5	46.4	0.64	10	12.6	0.5	0.01	0	0.0	0.0	0.00
65	78	10814	6.5	6.1	7.2	8.8	9.4	1.15	2.4	4.8	0.32	1.08	35.4	126	0.96	0.110	0.103	13.9	0.44	5218	13334	442	117	D	F	0.0131	141.2	1.81	3129	8.7	63.0	0.81	30	12.7	1.7	0.02	1	14.4	0.1	0.00
70	83	10068	6.8	6.5	7.5	9.2	9.8	1.19	2.4	5.1	0.32	1.17	37.1	124	1.00	0.109	0.102	14.2	0.46	5265	13334	444	117	D	F	0.0154	154.9	1.87	3582	8.9	80.2	0.97	71	12.8	4.1	0.05	5	14.4	0.3	0.00
75	88	9373	7.2	6.8	7.8	9.5	10.2	1.23	2.5	5.4	0.31	1.25	38.5	123	1.03	0.109	0.102	14.3	0.47	5291	13334	443	117	D	F	0.0179	167.7	1.91	3924	9.1	97.3	1.11	136	12.9	8.3	0.09	13	14.5	0.9	0.01
80	93	8728	7.6	7.2	8.1	9.8	10.5	1.27	2.6	5.6	0.31	1.34	39.7	121	1.07	0.109	0.102	14.4	0.49	5300	13334	440	117	D	F	0.0206	179.6	1.93	4298	9.2	114.9	1.24	229	13.0	14.6	0.16	31	14.6	2.2	0.02
85	98	8133	8.0	7.5	8.3	10.1	10.9	1.31	2.7	5.9	0.31	1.42	40.7	120	1.11	0.109	0.102	14.4	0.50	5295	13334	436	116	D	F	0.0234	190.6	1.94	4434	9.5	130.4	1.33	347	13.1	23.0	0.23	61	14.7	4.5	0.05
90	103	7586	8.3	7.9	8.6	10.4	11.2	1.35	2.7	6.1	0.30	1.51	41.5	118	1.15	0.110	0.103	14.4	0.51	5278	13334	431	115	D	F	0.0264	200.6	1.95	4493	9.7	144.9	1.41	484	13.2	33.4	0.32	104	14.8	8.0	0.08
95	108	7082	8.7	8.2	8.8	10.7	11.5	1.39	2.8	6.3	0.30	1.61	42.2	117	1.19	0.111	0.104	14.3	0.52	5251	13334	426	114	D	F	0.0296	209.7	1.94	4493	9.9	158.2	1.46	631	13.4	45.3	0.42	162	14.9	12.9	0.12
100	113	6619	9.1	8.6	9.1	11.0	11.8	1.43	2.9	6.5	0.30	1.70	42.7	115	1.23	0.112	0.105	14.2	0.52	5216	13334	419	112	D	F	0.0329	218.0	1.93	4448	10.2	170.3	1.51	783	13.5	58.4	0.52	234	15.0	19.3	0.17
105	118	6195	9.4	8.9	9.3	11.2	12.0	1.47	2.9	6.7	0.30	1.79	43.1	114	1.27	0.113	0.106	14.0	0.52	5176	13334	412	111	D	F	0.0364	225.4	1.91	4368	10.4	181.3	1.54	932	13.6	72.1	0.61	316	15.1	27.0	0.23
110	123	5806	9.8	9.2	9.5	11.5	12.3	1.51	3.0	6.9	0.30	1.89	43.4	113	1.31	0.115	0.107	13.9	0.52	5131	13334	405	110	D	F	0.0400	232.1	1.89	4261	10.6	191.2	1.55	1070	13.8	86.1	0.70	405	15.2	35.9	0.29
115	128	5448	10.1	9.6	9.7	11.7	12.5	1.55	3.1	7.0	0.30	1.99	43.6	111	1.35	0.116	0.108	13.7	0.53	5082	13334	398	108	D	F	0.0437	238.0	1.86	4140	10.9	200.1	1.56	1198	13.9	99.9	0.78	499	15.3	45.7	0.36
120	133	5120	10.4	9.9	9.9	11.9	12.7	1.58	3.2	7.2	0.30	2.08	43.7	110	1.40	0.117	0.110	13.5	0.52	5030	13334	390	107	D	F	0.0475	243.3	1.83	4009	11.1	208.0	1.56	1312	14.1	113.3	0.85	594	15.5	56.1	0.42
125	138	4819	10.8	10.2	10.1	12.1	13.0	1.62	3.2	7.3	0.30	2.18	43.7	109	1.44	0.119	0.111	13.3	0.52	4977	13334	383	105	D	F	0.0514	247.9	1.80	3872	11.4	215.1	1.56	1410	14.2	126.1	0.91	687	15.6	67.0	0.49
130	143	4542	11.1	10.5	10.2	12.3	13.2	1.66	3.3	7.5	0.30	2.28	43.8	108	1.48	0.121	0.113	13.1	0.52	4922	13334	375	104	D	F	0.0555	252.0	1.76	3731	11.6	221.3	1.55	1492	14.4	138.2	0.97	774	15.7	78.0	0.55
135	148	4287	11.4	10.8	10.4	12.5	13.3	1.69	3.4	7.6	0.30	2.38	43.7	107	1.53	0.123	0.114	13.0	0.52	4867	13334	368	102	D	F	0.0596	255.5	1.73	3590	11.9	226.8	1.53	1559	14.6	149.4	1.01	856	15.9	89.0	0.60
140	153	4052	11.7	11.1	10.6	12.6	13.5	1.73	3.4	7.7	0.30	2.48	43.6	105	1.57	0.124	0.116	12.8	0.52	4812	13334	360	101	D	F	0.0638	258.6	1.69	3450	12.1	231.7	1.51	1611	14.7	159.7	1.04	930	16.0	99.7	0.65
145	158	3835	12.0	11.4	10.7	12.8	13.7	1.76	3.5	7.8	0.30	2.59	43.5	104	1.61	0.126	0.118	12.6	0.51	4756	13334	353	99	D	F	0.0681	261.2	1.65	3313	12.4	235.9	1.49	1649	14.9	169.2	1.07	995	16.1	110.0	0.70
150	163	3634	12.3	11.7	10.9	13.0	13.9	1.80	3.6	7.9	0.30	2.69	43.4	103	1.66	0.128	0.120	12.4	0.51	4701	13334	346	98	D	F	0.0725	263.5	1.62	3180	12.6	239.6	1.47	1675	15.1	177.8	1.09	1052	16.3	119.9	0.74
155	168	3449	12.6	12.0	11.0	13.1	14.0	1.83	3.6	8.0	0.31	2.79	43.2	102	1.70	0.130	0.121	12.2	0.50	4647	13334	339	96	D	F	0.0769	265.3	1.58	3053	12.9	242.7	1.44	1693	15.2	185.5	1.10	1102	16.4	129.3	0.77
160	173	3278	12.9	12.3	11.1	13.3	14.2	1.86	3.7	8.1	0.31	2.90	43.0	101	1.75	0.132	0.123	12.0	0.50	4594	13334	333	95	D	F	0.0814	266.9	1.54	2932	13.1	245.4	1.42	1701	15.4	192.4	1.11	1143	16.6	138.0	0.80
165	178	3119	13.2	12.6	11.3	13.4	14.3	1.90	3.8	8.2	0.31	3.00	42.8	100	1.79	0.134	0.125	11.8	0.49	4541	13334	326	94	D	F	0.0860	268.1	1.51	2816	13.3	247.8	1.39	1702	15.6	198.6	1.12	1178	16.7	146.2	0.82
170	183	2971	13.5	12.9	11.4	13.5	14.5	1.93	3.8	8.3	0.31	3.11	42.6	99	1.83	0.136	0.127	11.6	0.49	4490	13334	320	92	D	F	0.0906	269.1	1.47	2705	13.6	249.7	1.36	1696	15.8	204.1	1.12	1204	16.9	153.8	0.84
175	188	2834	13.8	13.1	11.5	13.7	14.6	1.96	3.9	8.3	0.31	3.21	42.4	98	1.88	0.138	0.129	11.4	0.49	4440	13334	314	91	D	F	0.0952	269.8	1.44	2598	13.8	251.3	1.34	1684	15.9	208.9	1.11	1224	17.0	160.8	0.86
180	193	2707	14.1	13.4	11.6	13.8	14.7	1.99	3.9	8.4	0.31	3.32	42.2	97	1.92	0.140	0.130	11.2	0.48	4391	13334	308	90	D	F	0.0999	270.3	1.40	2498	14.1	252.6	1.31	1669	16.1	213.2	1.10	1239	17.2	167.2	0.87
SI = 8 m Initial Density = 30000 stems/ha																																								
5	18	29805	0.5	0.4	1.5	2.0	2.0	0.66	1.0	0.4	0.70	0.34	0.5	436	0.58	0.295	0.283	0.7	0.01	3318	18973	129	101	D	F	0.0000	0.4	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	23	29309	1.1	1.0	2.1	2.7	2.8	0.68	1.2	0.7	0.61	0.37	2.8	224	0.58	0.218	0.207	2.7	0.04	3772	18973	195	108	D	F	0.0001	3.0	0.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	28	28524	1.7	1.6	2.6	3.4	3.6	0.71	1.3	1.1	0.54	0.40	6.2	182	0.59	0.175	0.165	4.8	0.08	4225	18973	260	115	D	F	0.0003	8.4	0.30	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	33	27488	2.2	2.0	3.2	4.1	4.3	0.75	1.5	1.5	0.48	0.44	10.3	164	0.60	0.148	0.140	6.9	0.13	4660	18973	322	122	D	F	0.0006	16.8	0.51	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	38	26252	2.7	2.5	3.7	4.7	5.0	0.79	1.6	1.9	0.44	0.49	14.6	155	0.62	0.131	0.123	8.9	0.18	5059	18973	376	128	D	F	0.0011	28.1	0.74	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	43	24873	3.1	2.9	4.1	5.3	5.7	0.82	1.6	2.3	0.41	0.54	18.9	149	0.63	0.119	0.111	10.7	0.23	5411	18973	423	134	D	F	0.0017	41.8	0.97	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	48	23410	3.5	3.3	4.6	5.9	6.3	0.86	1.7	2.7	0.38	0.59	23.2	145	0.65	0.111	0.103	12.3	0.29	5710	18973	462	139	D	F	0.0025	57.4	1.20	10	7.9	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	53	21912	4.0	3.7	5.0	6.5	6.9	0.90	1.8	3.1	0.36	0.65	27.1	142	0.68	0.105	0.098	13.6	0.34	5954	18973	493	143	D	F	0.0034	74.2	1.40	88	7.9	1.0	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	58	20422	4.4	4.1	5.4	7.0	7.5	0.94	1.8	3.4	0.34	0.71	30.8	139	0.70	0.100	0.094	14.7	0.39	6146	18973	516	145	D	F	0.0045	91.7	1.58	359	7.9	4.4	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00
50	63	18973	4.8	4.5	5.8	7.4	8.0	0.98	1.9	3.8	0.33	0.77	34.0	137	0.73	0.098	0.091	15.6	0.43	6290	18973	533	147	D	F	0.0058	109.2	1.73	809	8.1	11.0	0.17	0	0.0	0.0	0.00	0	0.0	0.0	0.00
55	68	17587	5.2	4.9	6.2	7.9	8.5	1.02	2.0	4.1	0.32	0.84	36.9	135	0.75	0.096	0.089	16.2	0.47	6391	18973	544	148	D	F	0.0072	126.5	1.86	1571	8.1	22.8	0.34	0	0.0	0.0	0.00	0	0.0	0.0	0.00
60	73	16279	5.6	5.2	6.5	8.3	8.9	1.06	2.1	4.4	0.31	0.91	39.4	133	0.78	0.094	0.088	16.7	0.50	6455	18973	550	148	D	F	0.0088	143.2	1.96	2295	8.3	37.2	0.51	2	12.5	0.1	0.00	0	0.0	0.0	0.00
65	78	15058	5.9	5.6	6.8	8.7	9.4	1.09	2.1	4.7	0.30	0.98	41.5	131	0.81	0.094	0.087	17.1	0.52	6488	18973	552	147	D	F	0.0106	159.1	2.04	3004	8.4	54.1	0.69	8	12.6	0.4	0.01	0	0.0	0.0	0.00
70	83	13926	6.3	5.9	7.1	9.1	9.8	1.13	2.2	5.0	0.30	1.05	43.3	129	0.85	0.093	0.087	17.3	0.55	6495	18973	551	146	D	F	0.0125	174.0	2.10	3638	8.6	72.4	0.87	24	12.7	1.4	0.02	1	14.3	0.1	0.00
75	88	12884	6.7	6.3	7.4	9.4	10.2	1.17	2.3	5.3	0.29	1.12	44.8	127	0.88	0.094	0.087	17.4	0.56	6480	18973	547	145	D	F	0.0146	187.9	2.13	4365	8.7	92.9	1.06	58	12.8	3.4	0.04	3	14.4	0.2	0.00
80	93	11928	7.0	6.6	7.7	9.7	10.5	1.21	2.3	5.5	0.29	1.20	46.1	126	0.92	0.094	0.087	17.4	0.58	6448	18973	542	143	D	F	0.0168	200.8	2.16	4755	8.9	111.5	1.20	114	12.8	7.1	0.08	9	14.5	0.6	0.01
85	98	11054	7.4	7.0	7.9	10.0	10.9	1.25	2.4	5.7	0.29	1.28	47.1	124	0.95	0.095	0.088	17.3	0.59	6402	18973	534	141	D	F	0.0192	212.5	2.17	5030	9.1	129.3	1.32	199	12.9	12.7	0.13	22	14.6	1.6	0.02
90	103	10256	7.7	7.3	8.2	10.3	11.2	1.28	2.5	6.0	0.29	1.36	47.9	122	0.99	0.096	0.088	17.2	0.60	6346	18973	526	139	D	F	0.0218	223.2	2.17	5197	9.3	146.1	1.42	308	13.0	20.4	0.20	45	14.6	3.3	0.03
95	108	9528	8.0	7.6	8.4	10.6	11.5	1.32	2.5	6.2	0.28	1.44	48.5	121	1.02	0.097	0.089	17.1	0.60	6281	18973	517	137	D	F	0.0244	232.9	2.16	5279	9.5	161.6	1.50	440	13.1	30.2	0.28	80	14.7	6.1	0.06
100	113	8865	8.4	7.9	8.6	10.9	11.8	1.36	2.6	6.4	0.28	1.52	48.9	119	1.06	0.098	0.090	16.9	0.61	6210	18973	507	135	D	F	0.0273	241.7	2.14	5291	9.7	175.9	1.56	588	13.3	41.8	0.37	129	14.8	10.2	0.09
105	118	8261	8.7	8.2	8.8	11.1	12.0	1.39	2.7	6.6	0.28	1.61	49.3	118	1.10	0.099	0.092	16.7	0.61	6135	18973	497	133	D	F	0.0302	249.5	2.11	5246	9.9	188.8	1.60	742	13.4	54.7	0.46	192	14.9	15.7	0.13
110	123	7710	9.0	8.6	9.0	11.3	12.3	1.43	2.7	6.7	0.28	1.69	49.5	117	1.14	0.100	0.093	16.5	0.61	6057	18973	487	131	D	F	0.0333	256.5	2.09	5163	10.1	200.5	1.63	902	13.5	68.5	0.56	269	15.0	22.6	0.18
115	128	7208	9.4	8.9	9.2	11.6	12.5	1.47	2.8	6.9	0.28	1.78	49.6	115	1.18	0.102	0.094	16.2	0.61	5976	18973	477	128	D	F	0.0364	262.7	2.05	5048	10.4	210.9	1.65	1055	13.6	82.8	0.65	354	15.1	30.7	0.24
120	133	6749	9.7	9.2	9.4	11.8	12.7	1.50	2.9	7.0	0.28	1.87	49.7	114	1.22	0.103	0.096	16.0	0.61	5895	18973	466	126	D	F	0.0397	268.1	2.02	4911	10.6	220.2	1.66	1198	13.8	97.3	0.73	445	15.2	39.9	0.30
125	138	6330	10.0	9.5	9.6	12.0	13.0	1.54	2.9	7.2	0.28	1.96	49.6	113	1.26	0.105	0.097	15.7	0.60	5813	18973	456	124	D	F	0.0431	272.9	1.98	4763	10.8	228.5	1.66	1330	13.9	111.5	0.81	542	15.3	50.0	0.36
130	143	5947	10.3	9.8	9.7	12.1	13.2	1.57	3.0	7.3	0.28	2.05	49.6	111	1.30	0.107	0.099	15.4	0.60	5731	18973	446	122	D	F	0.0466	277.1	1.94	4605	11.0	235.9	1.65	1448	14.0	125.3	0.88	640	15.4	60.7	0.42
135	148	5595	10.6	10.1	9.9	12.3	13.3	1.60	3.1	7.5	0.29	2.14	49.4	110	1.34	0.108	0.100	15.2	0.60	5651	18973	436	120	D	F	0.0502	280.7	1.90	4441	11.3	242.3	1.64	1549	14.2	138.3	0.93	735	15.5	71.7	0.48
140	153	5273	10.9	10.4	10.0	12.5	13.5	1.64	3.1	7.6	0.29	2.23	49.3	109	1.38	0.110	0.102	14.9	0.59	5571	18973	426	118	D	F	0.0538	283.8	1.85	4276	11.5	248.0	1.62	1633	14.3	150.6	0.98	824	15.7	82.9	0.54
145	158	4976	11.2	10.6	10.2	12.7	13.7	1.67	3.2	7.7	0.29	2.32	49.1	108	1.42	0.112	0.103	14.7	0.59	5493	18973	417	116	D	F	0.0576	286.5	1.81	4113	11.7	252.9	1.60	1704	14.5	162.1	1.03	909	15.8	94.0	0.59
150	163	4703	11.5	10.9	10.3	12.8	13.9	1.70	3.3	7.8	0.29	2.42	48.8	106	1.46	0.114	0.105	14.4	0.58	5416	18973	408	114	D	F	0.0614	288.7	1.77	3954	11.9	257.2	1.58	1761	14.6	172.6	1.06	987	15.9	104.9	0.64
155	168	4452	11.8	11.2	10.4	13.0	14.0	1.74	3.3	7.9	0.29	2.51	48.6	105	1.50	0.116	0.107	14.2	0.58	5341	18973	399	112	D	F	0.0653	290.5	1.73	3799	12.2	260.9	1.55	1805	14.8	182.3	1.09	1057	16.0	115.4	0.69
160	173	4220	12.1	11.5	10.6	13.1	14.2	1.77	3.4	8.0	0.29	2.60	48.3	104	1.54	0.118	0.108	13.9	0.57	5268	18973	391	110	D	F	0.0692	292.0	1.69	3650	12.4	264.1	1.53	1836	14.9	191.1	1.10	1120	16.2	125.5	0.73
165	178	4005	12.4	11.7	10.7	13.2	14.3	1.80	3.5	8.1	0.29	2.70	48.0	103	1.58	0.119	0.110	13.7	0.56	5197	18973	383	108	D	F	0.0732	293.2	1.65	3505	12.6	266.8	1.50	1856	15.1	199.0	1.12	1172	16.3	135.1	0.76
170	183	3807	12.6	12.0	10.8	13.4	14.5	1.83	3.5	8.1	0.30	2.79	47.7	102	1.62	0.121	0.112	13.4	0.56	5128	18973	375	106	D	F	0.0772	294.0	1.61	3366	12.9	269.1	1.47	1867	15.2	206.1	1.13	1219	16.4	144.2	0.79
175	188	3623	12.9	12.3	10.9	13.5	14.6	1.86	3.6	8.2	0.30	2.89	47.4	101	1.66	0.123	0.114	13.2	0.55	5061	18973	367	105	D	F	0.0813	294.6	1.57	3233	13.1	270.9	1.44	1871	15.4	212.4	1.13	1257	16.6	152.6	0.81
180	193	3452	13.2	12.5	11.0	13.6	14.7	1.89	3.6	8.3	0.30	2.99	47.1	100	1.70	0.125	0.115	13.0	0.55	4995	18973	360	103	D	F	0.0855	295.0	1.53	3106	13.3	272.5	1.41	1866	15.6	218.1	1.13	1288	16.7	160.5	0.83

Table A18. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																										
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai
SI = 8 m Initial Density = 50000 stems/ha																												
5	18	49631	0.3	0.3	1.5	2.0	2.0	0.66	1.0	0.5	0.66	0.34	0.5	573	0.45	0.230	0.219	0.8	0.01	5406	29620	199	168	D	F	0.0000	0.4	0.02
10	23	48680	0.9	0.9	2.0	2.7	2.8	0.68	1.1	0.8	0.57	0.36	3.4	257	0.45	0.170	0.161	3.5	0.05	6016	29620	290	174	D	F	0.0001	3.4	0.15
15	28	47175	1.4	1.3	2.5	3.4	3.6	0.70	1.2	1.1	0.50	0.39	7.7	202	0.46	0.137	0.129	6.4	0.10	6589	29620	380	182	D	F	0.0002	9.8	0.35
20	33	45196	1.9	1.8	3.0	4.0	4.3	0.73	1.3	1.5	0.45	0.42	12.7	180	0.47	0.116	0.109	9.3	0.16	7111	29620	462	189	D	F	0.0004	19.8	0.60
25	38	42854	2.3	2.2	3.4	4.7	5.0	0.76	1.3	1.9	0.40	0.46	18.2	168	0.48	0.103	0.096	11.9	0.23	7561	29620	535	196	D	F	0.0008	33.2	0.87
30	43	40273	2.7	2.6	3.9	5.3	5.7	0.79	1.4	2.3	0.37	0.50	23.7	161	0.50	0.094	0.088	14.3	0.30	7930	29620	595	200	D	F	0.0012	49.4	1.15
35	48	37570	3.1	2.9	4.3	5.9	6.3	0.82	1.5	2.6	0.35	0.54	28.9	155	0.52	0.088	0.082	16.3	0.37	8216	29620	643	203	D	F	0.0018	67.7	1.41
40	53	34844	3.5	3.3	4.7	6.4	6.9	0.86	1.5	3.0	0.33	0.59	33.8	151	0.54	0.084	0.077	18.0	0.44	8424	29620	679	205	D	F	0.0025	87.2	1.64
45	58	32175	3.9	3.6	5.1	6.9	7.5	0.89	1.6	3.4	0.31	0.64	38.1	148	0.56	0.081	0.075	19.3	0.49	8561	29620	705	205	D	F	0.0033	107.4	1.85
50	63	29620	4.2	4.0	5.4	7.4	8.0	0.93	1.7	3.7	0.30	0.69	42.0	145	0.58	0.079	0.073	20.4	0.54	8636	29620	722	205	D	F	0.0043	127.5	2.02
55	68	27214	4.6	4.3	5.8	7.8	8.5	0.96	1.7	4.0	0.29	0.75	45.3	142	0.61	0.078	0.071	21.1	0.59	8660	29620	731	203	D	F	0.0054	147.1	2.16
60	73	24978	5.0	4.7	6.1	8.2	8.9	1.00	1.8	4.3	0.29	0.80	48.2	140	0.63	0.077	0.071	21.6	0.62	8643	29620	733	201	D	F	0.0066	165.9	2.27
65	78	22919	5.3	5.0	6.4	8.6	9.4	1.03	1.8	4.6	0.28	0.86	50.6	138	0.66	0.077	0.070	22.0	0.65	8592	29620	731	198	D	F	0.0080	183.7	2.35
70	83	21037	5.6	5.3	6.7	9.0	9.8	1.07	1.9	4.8	0.27	0.92	52.6	135	0.69	0.077	0.070	22.1	0.68	8515	29620	725	194	D	F	0.0095	200.2	2.41
75	88	19325	6.0	5.6	6.9	9.3	10.2	1.10	2.0	5.1	0.27	0.99	54.2	133	0.72	0.077	0.071	22.2	0.70	8419	29620	716	191	D	F	0.0112	215.6	2.45
80	93	17773	6.3	5.9	7.2	9.6	10.5	1.13	2.0	5.3	0.27	1.05	55.5	132	0.75	0.078	0.071	22.1	0.71	8308	29620	704	187	D	F	0.0129	229.7	2.47
85	98	16369	6.6	6.2	7.4	9.9	10.9	1.17	2.1	5.6	0.27	1.12	56.5	130	0.78	0.079	0.072	21.9	0.72	8187	29620	692	183	D	F	0.0148	242.5	2.47
90	103	15100	6.9	6.6	7.6	10.2	11.2	1.20	2.1	5.8	0.27	1.19	57.3	128	0.81	0.080	0.073	21.7	0.73	8059	29620	678	179	D	F	0.0168	254.2	2.47
95	108	13953	7.3	6.9	7.8	10.5	11.5	1.24	2.2	6.0	0.26	1.26	57.8	126	0.85	0.081	0.074	21.5	0.74	7926	29620	663	175	D	F	0.0190	264.6	2.45
100	113	12917	7.6	7.2	8.0	10.7	11.8	1.27	2.3	6.2	0.26	1.33	58.2	125	0.88	0.082	0.075	21.2	0.74	7791	29620	648	172	D	F	0.0212	274.0	2.42
105	118	11980	7.9	7.4	8.2	11.0	12.0	1.30	2.3	6.3	0.26	1.40	58.5	123	0.91	0.083	0.076	20.8	0.74	7655	29620	632	168	D	F	0.0236	282.4	2.39
110	123	11132	8.2	7.7	8.4	11.2	12.3	1.34	2.4	6.5	0.26	1.47	58.6	122	0.95	0.085	0.077	20.5	0.74	7520	29620	617	164	D	F	0.0260	289.9	2.36
115	128	10364	8.5	8.0	8.6	11.4	12.5	1.37	2.5	6.7	0.26	1.55	58.6	120	0.98	0.086	0.079	20.1	0.74	7387	29620	602	161	D	F	0.0286	296.5	2.32
120	133	9666	8.8	8.3	8.7	11.6	12.7	1.40	2.5	6.8	0.26	1.63	58.5	119	1.02	0.088	0.080	19.7	0.73	7255	29620	587	157	D	F	0.0313	302.3	2.27
125	138	9032	9.1	8.6	8.9	11.8	13.0	1.43	2.6	7.0	0.27	1.70	58.4	117	1.05	0.089	0.081	19.4	0.73	7126	29620	573	154	D	F	0.0340	307.4	2.23
130	143	8455	9.4	8.9	9.0	12.0	13.2	1.47	2.7	7.1	0.27	1.78	58.2	116	1.09	0.091	0.083	19.0	0.72	7001	29620	558	150	D	F	0.0369	311.8	2.18
135	148	7929	9.6	9.1	9.2	12.1	13.3	1.50	2.7	7.2	0.27	1.86	57.9	115	1.12	0.092	0.084	18.6	0.71	6878	29620	545	147	D	F	0.0398	315.6	2.13
140	153	7448	9.9	9.4	9.3	12.3	13.5	1.53	2.8	7.4	0.27	1.94	57.6	113	1.16	0.094	0.086	18.3	0.71	6759	29620	531	144	D	F	0.0428	318.8	2.08
145	158	7008	10.2	9.7	9.4	12.5	13.7	1.56	2.8	7.5	0.27	2.02	57.3	112	1.19	0.096	0.087	17.9	0.70	6644	29620	519	141	D	F	0.0459	321.5	2.03
150	163	6604	10.5	9.9	9.6	12.6	13.9	1.59	2.9	7.6	0.27	2.10	56.9	111	1.23	0.098	0.089	17.6	0.69	6533	29620	506	139	D	F	0.0490	323.8	1.99
155	168	6233	10.7	10.2	9.7	12.8	14.0	1.62	3.0	7.7	0.27	2.18	56.6	110	1.27	0.099	0.090	17.3	0.68	6425	29620	494	136	D	F	0.0522	325.6	1.94
160	173	5892	11.0	10.4	9.8	12.9	14.2	1.65	3.0	7.8	0.27	2.26	56.2	109	1.30	0.101	0.092	16.9	0.68	6320	29620	483	133	D	F	0.0555	327.1	1.89
165	178	5578	11.3	10.7	9.9	13.0	14.3	1.68	3.1	7.9	0.28	2.35	55.8	107	1.34	0.103	0.093	16.6	0.67	6220	29620	472	131	D	F	0.0588	328.2	1.84
170	183	5288	11.5	11.0	10.0	13.2	14.5	1.71	3.1	7.9	0.28	2.43	55.4	106	1.38	0.105	0.095	16.3	0.66	6122	29620	461	129	D	F	0.0622	329.0	1.80
175	188	5020	11.8	11.2	10.1	13.3	14.6	1.74	3.2	8.0	0.28	2.51	55.0	105	1.41	0.106	0.097	16.0	0.65	6029	29620	451	126	D	F	0.0657	329.6	1.75
180	193	4771	12.1	11.5	10.2	13.4	14.7	1.77	3.2	8.1	0.28	2.60	54.5	104	1.45	0.108	0.098	15.7	0.64	5938	29620	441	124	D	F	0.0691	329.8	1.71
SI = 8 m Initial Density = 80000 stems/ha																												
5	18	79347	0.2	0.2	1.4	1.9	2.0	0.65	0.9	0.5	0.63	0.34	0.4	798	0.36	0.183	0.173	0.8	0.01	8487	44683	298	266	D	F	0.0000	0.3	0.02
10	23	77648	0.8	0.7	1.9	2.6	2.8	0.67	1.0	0.8	0.53	0.35	3.8	294	0.36	0.136	0.127	4.3	0.06	9289	44683	420	273	D	F	0.0000	3.7	0.16
15	28	74951	1.2	1.2	2.3	3.3	3.6	0.69	1.0	1.2	0.46	0.37	9.1	223	0.37	0.109	0.102	8.2	0.13	9985	44683	540	281	D	F	0.0001	11.1	0.40
20	33	71419	1.7	1.5	2.8	4.0	4.3	0.71	1.1	1.5	0.41	0.40	15.5	196	0.37	0.093	0.087	12.0	0.21	10571	44683	649	287	D	F	0.0003	22.8	0.69
25	38	67273	2.0	1.9	3.2	4.6	5.0	0.74	1.2	1.9	0.37	0.43	22.2	181	0.39	0.083	0.077	15.5	0.30	11034	44683	742	291	D	F	0.0006	38.4	1.01
30	43	62751	2.4	2.3	3.7	5.2	5.7	0.77	1.2	2.2	0.34	0.47	28.9	172	0.40	0.076	0.070	18.6	0.38	11368	44683	816	292	D	F	0.0009	57.2	1.33
35	48	58073	2.8	2.6	4.0	5.8	6.3	0.80	1.3	2.6	0.32	0.50	35.3	165	0.41	0.072	0.066	21.2	0.47	11582	44683	874	292	D	F	0.0013	78.2	1.63
40	53	53419	3.1	2.9	4.4	6.3	6.9	0.82	1.3	2.9	0.30	0.54	41.1	160	0.43	0.068	0.063	23.2	0.55	11690	44683	915	289	D	F	0.0019	100.6	1.90
45	58	48926	3.5	3.2	4.7	6.8	7.5	0.85	1.4	3.3	0.29	0.58	46.3	156	0.45	0.066	0.060	24.8	0.62	11708	44683	941	285	D	F	0.0025	123.4	2.13
50	63	44683	3.8	3.6	5.1	7.3	8.0	0.88	1.4	3.6	0.28	0.63	50.8	153	0.47	0.065	0.059	26.0	0.68	11654	44683	956	280	D	F	0.0033	146.0	2.32
55	68	40741	4.1	3.9	5.4	7.7	8.5	0.92	1.5	3.9	0.27	0.67	54.6	150	0.50	0.064	0.058	26.9	0.73	11544	44683	961	275	D	F	0.0041	168.0	2.47
60	73	37125	4.5	4.2	5.7	8.1	8.9	0.95	1.5	4.2	0.26	0.72	57.9	147	0.52	0.064	0.058	27.4	0.77	11392	44683	958	268	D	F	0.0051	188.8	2.59
65	78	33836	4.8	4.5	5.9	8.5	9.4	0.98	1.6	4.4	0.26	0.77	60.5	144	0.54	0.064	0.058	27.7	0.80	11211	44683	949	261	D	F	0.0062	208.4	2.67
70	83	30862	5.1	4.8	6.2	8.9	9.8	1.01	1.7	4.7	0.25	0.82	62.7	142	0.57	0.064	0.058	27.8	0.83	11009	44683	935	255	D	F	0.0073	226.7	2.73
75	88	28185	5.4	5.1	6.4	9.2	10.2	1.04	1.7	4.9	0.25	0.88	64.4	139	0.60	0.065	0.059	27.7	0.85	10793	44683	919	248	D	F	0.0086	243.4	2.77
80	93	25781	5.7	5.4	6.7	9.5	10.5	1.07	1.8	5.1	0.25	0.93	65.8	137	0.62	0.066	0.059	27.5	0.86	10570	44683	900	241	D	F	0.0100	258.8	2.78
85	98	23625	6.0	5.6	6.9	9.8	10.9	1.10	1.8	5.4	0.25	0.99	66.8	135	0.65	0.066	0.060	27.3	0.87	10344	44683	879	234	D	F	0.0115	272.7	2.78
90	103	21692	6.3	5.9	7.1	10.1	11.2	1.13	1.9	5.6	0.25	1.05	67.5	133	0.68	0.067	0.061	26.9	0.88	10118	44683	858	228	D	F	0.0131	285.2	2.77
95	108	19958	6.6	6.2	7.3	10.3	11.5	1.16	1.9	5.8	0.25	1.11	68.0	132	0.71	0.069	0.062	26.5	0.88	9895	44683	836	222	D	F	0.0149	296.5	2.75
100	113	18402	6.9	6.5	7.4	10.6	11.8	1.19	2.0	6.0	0.25	1.17	68.3	130	0.74	0.070	0.063	26.1	0.89	9675	44683	814	216	D	F	0.0167	306.6	2.71
105	118	17004	7.2	6.8	7.6	10.8	12.0	1.23	2.1	6.1	0.25	1.23	68.5	128	0.77	0.071	0.064	25.6	0.88	9461	44683	793	210	D	F	0.0186	315.6	2.67
110	123	15745	7.4	7.0	7.8	11.0	12.3	1.26	2.1	6.3	0.25	1.30	68.5	127	0.80	0.072	0.065	25.1	0.88	9253	44683	771	204	D	F	0.0206	323.6	2.63
115	128	14610	7.7	7.3	7.9	11.2	12.5	1.29	2.2	6.5	0.25	1.36	68.4	125	0.83	0.074	0.066	24.6	0.88	9052	44683	750	199	D	F	0.0226	330.7	2.58
120	133	13585	8.0	7.6	8.1	11.4	12.7	1.32	2.2	6.6	0.25	1.43	68.2	124	0.86	0.075	0.067	24.1	0.87	8857	44683	730	194	D	F	0.0248	336.8	2.53
125	138	12657	8.3	7.8	8.2	11.6	13.0	1.34	2.3	6.7	0.25	1.49	67.9	122	0.89	0.076	0.069	23.6	0.86	8670	44683	710	189	D	F	0.0270	342.2	2.48
130	143	11815	8.5	8.1	8.4	11.8	13.2	1.37	2.4	6.9	0.25	1.56	67.6	121	0.92	0.078	0.070	23.1	0.85	8489	44683	691	185	D	F	0.0294	346.9	2.43
135	148	11051	8.8	8.3	8.5	12.0	13.3	1.40	2.4	7.0	0.25	1.63	67.2	119	0.95	0.079	0.071	22.7	0.85	8315	44683	673	180	D	F	0.0318	351.0	2.37
140	153	10354	9.1	8.6	8.6	12.1	13.5	1.43	2.5	7.1	0.25	1.70	66.8	118	0.98	0.081	0.073	22.2	0.84	8148	44683	655	176	D	F	0.0342	354.4	2.32
145	158	9719	9.3	8.8	8.7	12.3	13.7	1.46	2.5	7.2	0.25	1.77	66.3	117	1.01	0.083	0.074	21.7	0.83	7988	44683	638	172	D	F	0.0368	357.3	2.26
150	163	9138	9.6	9.1	8.8	12.4	13.9	1.49	2.6	7.4	0.25	1.84	65.9	115	1.05	0.084	0.075	21.3	0.82	7834	44683	622	168	D	F	0.0394	359.7	2.21
155	168	8607	9.8	9.3	9.0	12.6	14.0	1.52	2.6	7.5	0.26	1.91	65.4	114	1.08	0.086	0.077	20.8	0.81	7687	44683	606	164	D	F	0.0420	361.6	2.15
160	173	8118	10.1	9.5	9.1	12.7	14.2	1.54	2.7	7.5	0.26	1.98	64.8	113	1.11	0.087	0.078	20.4	0.80	7545	44683	591	161	D	F	0.0447	363.2	2.10
165	178	7670	10.3	9.8	9.2	12.8	14.3	1.57	2.7	7.6	0.26	2.06	64.3	111	1.14	0.089	0.080	20.0	0.79	7409	44683	577	158	D	F	0.0475	364.3	2.05
170	183	7256	10.6	10.0	9.3	13.0	14.5	1.60	2.8	7.7	0.26	2.13	63.8	110	1.17	0.091	0.081	19.6	0.78	7278	44683	563	155	D	F	0.0503	365.2	2.00
175	188	6875	10.8	10.3	9.3	13.1	14.6	1.63	2.9	7.8	0.26	2.20	63.3	109	1.21	0.092	0.083	19.2	0.77	7153	44683	550	151	D	F	0.0532	365.7	1.95
180	193	6522	11.1	10.5	9.4	13.2	14.7	1.65	2.9	7.9	0.26	2.28	62.7	108	1.24	0.094	0.084	18.9	0.75	7033	44683	537	149	D	F	0.0561	365.9	1.90

Bh age	Total age	Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 8 m Initial Density = 50000 stems/ha													
5	18	0	0.0	0.0	0.00	.	0.0	0.0	0.00	.	0.0	0.0	0.00
10	23	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	28	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	33	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	38	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	43	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	48	1	7.8	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	53	15	7.8	0.2	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	58	111	7.8	1.2	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
50	63	359	7.9	4.4	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00
55	68	932	7.9	12.1	0.18	0	0.0	0.0	0.00	0	0.0	0.0	0.00
60	73	1625	8.0	23.3	0.32	0	0.0	0.0	0.00	0	0.0	0.0	0.00
65	78	2426	8.2	38.3	0.49	1	12.5	0.0	0.00	0	0.0	0.0	0.00
70	83	3246	8.3	56.3	0.68	3	12.5	0.2	0.00	0	0.0	0.0	0.00
75	88	4280	8.4	78.3	0.89	12	12.6	0.7	0.01	0	0.0	0.0	0.00
80	93	4940	8.5	98.9	1.06	32	12.7	1.9	0.02	1	14.3	0.1	0.00
85	98	5465	8.7	119.4	1.22	69	12.7	4.3	0.04	3	14.4	0.3	0.00
90	103	5858	8.9	139.2	1.35	129	12.8	8.2	0.08	10	14.5	0.7	0.01
95	108	6126	9.0	158.0	1.46	214	12.9	14.1	0.13	22	14.5	1.6	0.01
100	113	6288	9.2	175.4	1.55	325	13.0	21.9	0.19	43	14.6	3.3	0.03
105	118	6359	9.4	191.4	1.62	457	13.1	31.8	0.27	76	14.7	5.9	0.05
110	123	6356	9.6	206.0	1.67	605	13.2	43.3	0.35	121	14.8	9.7	0.08
115	128	6297	9.8	219.1	1.71	763	13.3	56.3	0.44	178	14.8	14.7	0.11
120	133	6196	10.0	230.9	1.74	926	13.4	70.2	0.53	250	14.9	21.1	0.16
125	138	6060	10.2	241.4	1.75	1086	13.5	84.7	0.61	331	15.0	28.6	0.21
130	143	5904	10.4	250.8	1.75	1241	13.6	99.5	0.70	420	15.1	37.3	0.26
135	148	5732	10.6	259.0	1.75	1385	13.8	114.2	0.77	514	15.2	46.9	0.32
140	153	5550	10.8	266.3	1.74	1517	13.9	128.5	0.84	613	15.3	57.2	0.37
145	158	5362	11.0	272.7	1.73	1635	14.0	142.3	0.90	711	15.4	68.0	0.43
150	163	5172	11.2	278.2	1.71	1736	14.1	155.4	0.95	806	15.5	79.1	0.49
155	168	4984	11.4	283.0	1.68	1824	14.3	167.7	1.00	898	15.6	90.3	0.54
160	173	4800	11.6	287.2	1.66	1899	14.4	179.2	1.04	986	15.7	101.5	0.59
165	178	4621	11.8	290.7	1.63	1959	14.5	189.7	1.07	1067	15.8	112.4	0.63
170	183	4442	12.0	293.7	1.60	2003	14.7	199.5	1.09	1138	16.0	123.0	0.67
175	188	4274	12.2	296.3	1.58	2040	14.8	208.3	1.11	1205	16.1	133.2	0.71
180	193	4111	12.4	298.3	1.55	2064	14.9	216.3	1.12	1263	16.2	142.9	0.74
SI = 8 m Initial Density = 80000 stems/ha													
5	18	0	0.0	0.0	0.00	.	0.0	0.0	0.00	.	0.0	0.0	0.00
10	23	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	28	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	33	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	38	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	43	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	48	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	53	1	7.7	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	58	21	7.7	0.2	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
50	63	110	7.8	1.3	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
55	68	415	7.8	4.9	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00
60	73	909	7.9	11.9	0.16	0	0.0	0.0	0.00	0	0.0	0.0	0.00
65	78	1609	8.0	22.9	0.29	0	0.0	0.0	0.00	0	0.0	0.0	0.00
70	83	2449	8.1	37.9	0.46	0	0.0	0.0	0.00	0	0.0	0.0	0.00
75	88	3647	8.1	58.7	0.67	1	12.5	0.1	0.00	0	0.0	0.0	0.00
80	93	4540	8.3	79.5	0.85	6	12.5	0.3	0.00	0	0.0	0.0	0.00
85	98	5333	8.4	101.3	1.03	17	12.6	1.0	0.01	0	0.0	0.0	0.00
90	103	5998	8.5	123.3	1.20	39	12.7	2.4	0.02	1	14.3	0.1	0.00
95	108	6524	8.7	144.8	1.34	79	12.7	5.0	0.05	4	14.4	0.3	0.00
100	113	6913	8.8	165.3	1.46	139	12.8	9.1	0.08	10	14.5	0.8	0.01
105	118	7179	9.0	184.5	1.56	224	12.9	15.0	0.13	22	14.5	1.6	0.01
110	123	7337	9.2	202.3	1.64	332	13.0	22.7	0.18	41	14.6	3.2	0.03
115	128	7406	9.3	218.6	1.71	461	13.1	32.3	0.25	71	14.6	5.5	0.04
120	133	7402	9.5	233.4	1.75	607	13.2	43.6	0.33	112	14.7	8.9	0.07
125	138	7337	9.7	246.7	1.79	764	13.2	56.2	0.41	163	14.8	13.5	0.10
130	143	7227	9.8	258.7	1.81	927	13.3	69.9	0.49	227	14.9	19.2	0.13
135	148	7084	10.0	269.3	1.82	1091	13.4	84.3	0.57	303	15.0	26.1	0.18
140	153	6915	10.2	278.7	1.82	1251	13.5	99.1	0.65	386	15.0	34.1	0.22
145	158	6730	10.4	287.1	1.82	1406	13.6	113.9	0.72	478	15.1	43.0	0.27
150	163	6532	10.5	294.4	1.81	1549	13.8	128.6	0.79	574	15.2	52.7	0.32
155	168	6326	10.7	300.8	1.79	1679	13.9	142.8	0.85	669	15.3	63.0	0.37
160	173	6120	10.9	306.4	1.77	1798	14.0	156.5	0.90	768	15.4	73.8	0.43
165	178	5912	11.1	311.2	1.75	1902	14.1	169.5	0.95	864	15.5	84.8	0.48
170	183	5706	11.3	315.4	1.72	1992	14.2	181.8	0.99	956	15.6	95.8	0.52
175	188	5504	11.5	318.9	1.70	2069	14.3	193.3	1.03	1045	15.7	106.8	0.57
180	193	5308	11.6	322.0	1.67	2134	14.4	203.9	1.06	1128	15.8	117.7	0.61

Table A19. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 10 m Initial Density = 800 stems/ha																																								
5	15	799	1.9	1.8	2.0	2.2	2.3	0.73	1.7	0.2	0.88	0.42	0.2	132	3.54	1.584	1.554	0.2	0.00	116	747	8	3	V	F	0.0003	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	797	3.5	3.3	3.0	3.2	3.3	0.86	2.5	0.5	0.82	0.59	0.8	103	3.54	1.098	1.075	0.4	0.01	184	747	16	5	V	F	0.0015	1.2	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	794	4.9	4.6	3.9	4.2	4.3	0.99	3.1	0.9	0.76	0.80	1.5	97	3.55	0.843	0.824	0.7	0.01	264	747	23	6	A	F	0.0040	3.2	0.13	12	9.3	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	790	6.2	5.8	4.7	5.2	5.3	1.12	3.6	1.4	0.71	1.04	2.4	95	3.56	0.690	0.674	1.0	0.02	354	747	31	8	A	F	0.0081	6.4	0.21	124	9.3	2.0	0.07	2	12.6	0.1	0.00	0	0.0	0.0	0.00
25	35	785	7.4	6.9	5.6	6.1	6.2	1.25	4.0	1.9	0.66	1.29	3.4	94	3.57	0.590	0.575	1.2	0.03	448	747	38	10	A	F	0.0136	10.7	0.30	288	9.6	5.9	0.17	18	13.1	0.8	0.02	3	14.5	0.1	0.00
30	40	779	8.5	8.0	6.4	6.9	7.1	1.36	4.4	2.5	0.63	1.54	4.4	93	3.58	0.519	0.506	1.5	0.04	545	747	45	12	A	F	0.0204	15.9	0.39	419	10.1	11.0	0.27	60	13.5	3.0	0.07	16	15.0	0.9	0.02
35	45	772	9.4	8.9	7.2	7.7	7.9	1.47	4.6	3.0	0.59	1.80	5.4	93	3.60	0.468	0.456	1.8	0.05	642	747	51	14	A	F	0.0284	21.9	0.48	510	10.7	17.1	0.38	121	13.8	7.1	0.16	45	15.3	2.9	0.06
40	50	764	10.4	9.8	7.9	8.4	8.6	1.57	4.9	3.6	0.57	2.06	6.4	93	3.62	0.429	0.419	2.0	0.07	739	747	58	16	A	F	0.0373	28.5	0.56	569	11.2	23.8	0.47	190	14.2	12.8	0.25	88	15.6	6.4	0.13
45	55	756	11.2	10.6	8.5	9.1	9.3	1.67	5.1	4.1	0.55	2.32	7.5	93	3.64	0.399	0.389	2.2	0.08	832	747	63	18	A	F	0.0471	35.6	0.64	608	11.8	31.0	0.56	257	14.6	19.7	0.36	139	15.9	11.5	0.21
50	60	747	12.0	11.4	9.2	9.8	10.0	1.76	5.2	4.6	0.53	2.58	8.4	92	3.66	0.375	0.366	2.4	0.09	923	747	68	19	A	F	0.0576	43.0	0.71	633	12.4	38.4	0.63	315	15.0	27.2	0.45	192	16.3	17.7	0.29
55	65	738	12.7	12.1	9.7	10.4	10.6	1.84	5.4	5.0	0.51	2.83	9.4	92	3.68	0.356	0.347	2.6	0.10	1010	747	73	21	A	F	0.0686	50.6	0.77	648	13.0	46.0	0.70	366	15.4	35.2	0.54	242	16.6	24.8	0.38
60	70	728	13.4	12.8	10.3	10.9	11.2	1.92	5.5	5.5	0.49	3.08	10.3	91	3.71	0.340	0.332	2.8	0.11	1093	747	78	22	A	F	0.0799	58.2	0.83	656	13.6	53.6	0.76	407	15.8	43.3	0.61	287	16.9	32.3	0.46
65	75	718	14.1	13.4	10.8	11.4	11.7	1.99	5.6	5.9	0.48	3.32	11.2	91	3.73	0.327	0.319	3.0	0.12	1172	747	82	24	A	F	0.0916	65.8	0.87	660	14.1	61.3	0.81	441	16.1	51.4	0.68	327	17.2	40.2	0.53
70	80	707	14.7	14.0	11.3	11.9	12.2	2.06	5.7	6.2	0.47	3.56	12.0	90	3.76	0.316	0.309	3.1	0.13	1247	747	85	25	A	F	0.1037	73.3	0.91	659	14.6	68.7	0.85	467	16.5	59.4	0.74	360	17.6	48.0	0.60
75	85	697	15.3	14.6	11.7	12.4	12.6	2.13	5.8	6.6	0.46	3.79	12.8	90	3.79	0.307	0.300	3.3	0.14	1318	747	89	26	A	F	0.1158	80.7	0.94	658	15.1	76.1	0.89	488	16.9	67.2	0.79	389	17.9	56.0	0.66
80	90	686	15.9	15.2	12.2	12.8	13.1	2.19	5.9	6.9	0.45	4.02	13.6	89	3.82	0.299	0.292	3.4	0.15	1385	747	92	28	A	F	0.1281	87.9	0.97	653	15.6	83.3	0.92	503	17.3	74.7	0.83	412	18.2	63.6	0.70
85	95	675	16.4	15.7	12.5	13.2	13.5	2.26	6.0	7.2	0.45	4.25	14.3	89	3.85	0.292	0.286	3.5	0.16	1447	747	95	29	A	F	0.1404	94.8	0.99	647	16.1	90.2	0.94	515	17.7	82.0	0.86	432	18.6	71.2	0.75
90	100	664	16.9	16.2	12.9	13.5	13.8	2.31	6.1	7.5	0.44	4.47	15.0	88	3.88	0.287	0.281	3.6	0.16	1506	747	97	30	A	F	0.1527	101.4	1.01	640	16.6	96.8	0.96	523	18.0	89.0	0.89	447	18.9	78.4	0.78
95	105	653	17.4	16.7	13.3	13.9	14.2	2.37	6.1	7.7	0.44	4.68	15.6	88	3.91	0.282	0.276	3.7	0.17	1561	747	99	31	B	F	0.1651	107.8	1.02	633	17.0	103.1	0.98	529	18.4	95.7	0.91	459	19.2	85.4	0.81
100	110	642	17.9	17.1	13.6	14.2	14.5	2.42	6.2	7.9	0.43	4.90	16.2	87	3.95	0.278	0.272	3.8	0.18	1613	747	101	31	B	F	0.1773	113.8	1.03	625	17.5	109.2	0.99	532	18.7	102.0	0.92	468	19.5	92.0	0.83
105	115	631	18.4	17.6	13.9	14.5	14.8	2.48	6.3	8.2	0.43	5.11	16.7	86	3.98	0.274	0.269	3.9	0.18	1661	747	103	32	B	F	0.1895	119.6	1.04	616	17.9	114.9	0.99	533	19.1	107.9	0.93	475	19.8	98.4	0.85
110	120	620	18.8	18.0	14.2	14.8	15.1	2.53	6.3	8.4	0.42	5.31	17.2	86	4.02	0.271	0.266	4.0	0.19	1707	747	105	33	B	F	0.2016	125.0	1.04	607	18.3	120.3	1.00	532	19.4	113.5	0.94	479	20.1	104.3	0.87
115	125	610	19.2	18.4	14.5	15.1	15.4	2.57	6.4	8.5	0.42	5.52	17.7	85	4.05	0.268	0.263	4.0	0.19	1749	747	106	34	B	F	0.2136	130.3	1.04	599	18.7	125.6	1.00	532	19.8	119.1	0.95	483	20.4	110.1	0.88
120	130	599	19.7	18.9	14.8	15.3	15.6	2.62	6.4	8.7	0.42	5.72	18.2	84	4.09	0.266	0.261	4.1	0.20	1789	747	107	34	B	F	0.2255	135.1	1.04	589	19.1	130.4	1.00	529	20.1	124.0	0.95	484	20.7	115.4	0.88
125	135	589	20.1	19.2	15.0	15.6	15.9	2.67	6.5	8.9	0.42	5.91	18.6	84	4.12	0.264	0.260	4.2	0.20	1827	747	108	35	B	F	0.2374	139.8	1.03	580	19.5	135.1	1.00	526	20.4	128.8	0.95	484	21.1	120.4	0.89
130	140	579	20.4	19.6	15.2	15.8	16.1	2.71	6.5	9.0	0.41	6.11	19.0	83	4.16	0.263	0.258	4.2	0.21	1862	747	109	35	B	F	0.2489	144.1	1.03	571	19.8	139.4	0.99	522	20.7	133.3	0.95	484	21.3	125.2	0.89
135	145	570	20.8	20.0	15.5	16.0	16.3	2.75	6.6	9.1	0.41	6.30	19.4	82	4.19	0.261	0.257	4.3	0.21	1895	747	110	36	B	F	0.2604	148.4	1.02	563	20.2	143.7	0.99	518	21.0	137.6	0.95	483	21.6	129.9	0.89
140	150	560	21.2	20.4	15.7	16.2	16.5	2.79	6.6	9.2	0.41	6.49	19.7	82	4.23	0.260	0.256	4.3	0.22	1927	747	111	36	B	F	0.2716	152.1	1.01	554	20.5	147.4	0.98	513	21.4	141.5	0.94	481	21.9	134.0	0.89
145	155	551	21.5	20.7	15.9	16.4	16.7	2.83	6.7	9.3	0.41	6.67	20.1	81	4.26	0.259	0.255	4.3	0.22	1956	747	112	37	B	F	0.2828	155.8	1.00	546	20.9	151.1	0.97	508	21.7	145.2	0.93	478	22.2	138.0	0.89
150	160	542	21.9	21.1	16.1	16.6	16.9	2.87	6.7	9.4	0.41	6.86	20.4	80	4.30	0.258	0.254	4.4	0.22	1984	747	113	37	B	F	0.2939	159.3	0.99	537	21.2	154.5	0.96	503	21.9	148.7	0.93	475	22.5	141.7	0.88
155	165	533	22.2	21.4	16.3	16.8	17.1	2.91	6.7	9.5	0.41	7.04	20.7	80	4.33	0.258	0.254	4.4	0.23	2011	747	113	38	B	F	0.3047	162.4	0.98	529	21.5	157.6	0.95	497	22.2	151.9	0.92	472	22.7	145.2	0.88
160	170	525	22.6	21.7	16.4	17.0	17.3	2.95	6.8	9.6	0.41	7.22	21.0	79	4.36	0.257	0.253	4.4	0.23	2036	747	114	38	B	F	0.3152	165.5	0.97	521	21.8	160.8	0.94	492	22.5	155.1	0.91	468	23.0	148.6	0.87
165	175	516	22.9	22.0	16.6	17.1	17.4	2.99	6.8	9.7	0.41	7.39	21.3	79	4.40	0.257	0.253	4.4	0.23	2060	747	114	38	B	F	0.3258	168.1	0.96	512	22.2	163.3	0.93	486	22.8	157.7	0.90	464	23.3	151.4	0.86
170	180	508	23.2	22.4	16.8	17.3	17.6	3.02	6.9	9.7	0.41	7.57	21.5	78	4.44	0.257	0.253	4.5	0.24	2083	747	114	38	B	F	0.3360	170.7	0.95	505	22.5	165.9	0.92	480	23.1	160.3	0.89	460	23.5	154.3	0.85
175	185	501	23.5	22.7	16.9	17.4	17.7	3.06	6.9	9.8	0.41	7.74	21.8	77	4.47	0.256	0.252	4.5	0.24	2104	747	115	39	B	F	0.3461	173.4	0.93	498	22.8	168.6	0.91	475	23.4	163.0	0.88	456	23.8	157.2	0.85
180	190	493	23.8	23.0	17.1	17.6	17.9	3.09	6.9	9.8	0.41	7.91	22.0	77	4.50	0.256	0.252	4.5	0.24	2125	747	115	39	B	F	0.3560	175.5	0.92	490	23.1	170.7	0.90	469	23.6	165.2	0.87	451	24.1	159.5	0.84
SI = 10 m Initial Density = 1000 stems/ha																																								
5	15	999	1.8	1.7	2.0	2.2	2.3	0.72	1.7	0.2	0.88	0.41	0.3	138	3.16	1.418	1.390	0.2	0.00	144	911	10	4	V	F	0.0003	0.3	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	995	3.3	3.1	2.9	3.2	3.3	0.84	2.4	0.5	0.81	0.57	0.9	107	3.17	0.984	0.962	0.5	0.01	221	911	18	6	A	F	0.0014	1.4	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	990	4.7	4.4	3.8	4.2	4.3	0.97	3.0	1.0	0.75	0.76	1.7	100	3.18	0.756	0.738	0.8	0.02	313	911	27	8	A	F	0.0036	3.6	0.14	8	9.2	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	983	5.9	5.6	4.7	5.1	5.3	1.09	3.4	1.5	0.69	0.98	2.7	97	3.19	0.620	0.604	1.1	0.03	414	911	36	10	A	F	0.0072	7.1	0.23	118	9.1	1.8	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	974	7.1	6.6	5.6	6.0	6.2	1.21	3.8	2.0	0.65	1.21	3.8	96	3.20	0.530	0.516	1.4	0.04	521	911	44	12	A	F	0.0122	11.9	0.34	308	9.4	5.9	0.17	13	13.0	0.5	0.01	2	14.2	0.1	0.00
30	40	964	8.1	7.6	6.3	6.9	7.1	1.32	4.2	2.6	0.61	1.45	4.9	96	3.22	0.468	0.455	1.7	0.05	630	911	52	14	A	F	0.0184	17.7	0.44	473	9.9	11.6	0.29	50	13.3	2.4	0.06	11	14.9	0.6	0.01
35	45	952	9.0	8.5	7.1	7.7	7.9	1.43	4.4	3.1	0.58	1.69	6.1	96	3.24	0.422	0.411	2.0	0.06	739	911	60	16	A	F	0.0255	24.3	0.53	591	10.4	18.3	0.40	114	13.6	6.5	0.14	36	15.2	2.2	0.05
40	50	939	9.9	9.4	7.8	8.4	8.6	1.52	4.6	3.7	0.55	1.93	7.2	95	3.26	0.388	0.378	2.3	0.08	845	911	67	18	A	F	0.0338	31.7	0.63	669	10.9	25.8	0.51	190	14.0	12.3	0.24	79	15.4	5.6	0.11
45	55	925	10.7	10.2	8.5	9.1	9.3	1.62	4.8	4.2	0.53	2.17	8.4	95	3.29	0.361	0.352	2.6	0.09	949	911	73	20	A	F	0.0427	39.5	0.71	720	11.5	33.7	0.61	267	14.3	19.6	0.35	133	15.7	10.6	0.19
50	60	911	11.5	10.9	9.1	9.7	10.0	1.70	5.0	4.7	0.51	2.42	9.5	94	3.31	0.340	0.331	2.8	0.10	1048	911	79	22	A	F	0.0524	47.7	0.79	753	12.0	42.0	0.69	339	14.7	27.9	0.46	191	16.0	17.0	0.28
55	65	895	12.2	11.6	9.7	10.3	10.6	1.78	5.1	5.1	0.49	2.65	10.5	94	3.34	0.324	0.315	3.0	0.11	1142	911	84	24	A	F	0.0625	55.9	0.85	771	12.6	50.3	0.77	400	15.1	36.6	0.56	249	16.3	24.4	0.37
60	70	879	12.9	12.3	10.2	10.9	11.2	1.86	5.2	5.5	0.48	2.89	11.5	94	3.37	0.310	0.302	3.2	0.12	1231	911	89	25	A	F	0.0730	64.2	0.91	780	13.1	58.7	0.83	452	15.4	45.6	0.65	303	16.6	32.6	0.46
65	75	862	13.6	12.9	10.7	11.4	11.7	1.93	5.4	5.9	0.47	3.12	12.5	93	3.41	0.299	0.291	3.4	0.13	1315	911	93	27	A	F	0.0841	72.5	0.96	782	13.6	67.0	0.89	493	15.8	54.5	0.72	351	16.9	41.1	0.54
70	80	846	14.2	13.5	11.2	11.9	12.2	2.00	5.5	6.3	0.46	3.35	13.4	92	3.44	0.289	0.282	3.5	0.14	1394	911	97	28	A	F	0.0953	80.6	1.00	781	14.2	75.2	0.93	527	16.2	63.4	0.79	392	17.3	49.7	0.62
75	85	829	14.8	14.1	11.7	12.3	12.6	2.07	5.5	6.7	0.45	3.58	14.2	92	3.47	0.282	0.275	3.7	0.15	1468	911	101	30	A	F	0.1068	88.5	1.04	775	14.7	83.1	0.97	552	16.5	72.0	0.84	427	17.6	58.4	0.68
80	90	811	15.3	14.6	12.1	12.8	13.1	2.13	5.6	7.0	0.44	3.80	15.0	91	3.51	0.275	0.269	3.8	0.16	1536	911	104	31	B	F	0.1184	96.0	1.06	767	15.1	90.7	1.00	571	16.9	80.2	0.89	455	17.9	66.7	0.74
85	95	794	15.9	15.2	12.5	13.1	13.5	2.19	5.7	7.3	0.43	4.02	15.7	91	3.55	0.270	0.264	3.9	0.17	1600	911	106	32	B	F	0.1301	103.3	1.08	757	15.6	98.0	1.03	584	17.3	88.1	0.92	479	18.2	75.0	0.79
90	100	777	16.4	15.7	12.8	13.5	13.8	2.25	5.8	7.6	0.43	4.23	16.4	90	3.59	0.265	0.259	4.0	0.18	1659	911	109	33	B	F	0.1420	110.3	1.10	746	16.1	105.0	1.04	593	17.6	95.5	0.95	497	18.5	82.9	0.82
95	105	761	16.9	16.1	13.2	13.9	14.2	2.31	5.9	7.8	0.42	4.44	17.0	89	3.62	0.262	0.256	4.1	0.19	1713	911	111	34	B	F	0.1539	117.1	1.11	734	16.5	111.8	1.06	600	18.0	102.8	0.97	511	18.8	90.4	0.86
100	110	744	17.4	16.6	13.5	14.2	14.5	2.36	5.9	8.0	0.42	4.65	17.6	89	3.67	0.258	0.253	4.2	0.19	1764	911	112	35	B	F	0.1657	123.3	1.12	721	17.0	118.0	1.07	602	18.3	109.4	0.99	522	19.1	97.6	0.88
105	115	728	17.8	17.1	13.8	14.5	14.8	2.42	6.0	8.2	0.42	4.86	18.2	88	3.71	0.256	0.250	4.3	0.20	1811	911	114	35	B	F	0.1776	129.3	1.12	708	17.4	124.0	1.07	602	18.7	115.8	1.00	529	19.5	104.3	0.90
110	120	712	18.3	17.5	14.1	14.8	15.1	2.47	6.1	8.4	0.41	5.07	18.7	87	3.75	0.254	0.248	4.4	0.21	1854	911	115	36	B	F	0.1893	134.8	1.12	695	17.8	129.6	1.08	600	19.0	121.6	1.01	534	19.8	110.7	0.92
115	125	696	18.7	17.9	14.4	15.1	15.4	2.52	6.1	8.6	0.41	5.27	19.1	87	3.79	0.252	0.247	4.4	0.21	1895	911	117	37	B	F	0.2011	140.0	1.12	681	18.2	134.8	1.07	597	19.3	127.1	1.01	536	20.1	116.6	0.93
120	130	681	19.1	18.4	14.7	15.3	15.6	2.56	6.2	8.8	0.41	5.47	19.6	86	3.83	0.250	0.245	4.5	0.22	1932	911	118	37	B	F	0.2128	144.9	1.11	668	18.6	139.7	1.07	592	19.7	132.3	1.01	537	20.4	122.2	0.94
125	135	667	19.5	18.8	14.9	15.6	15.9	2.61	6.2	8.9	0.41	5.66	20.0	85	3.87	0.249	0.244	4.5	0.22	1966	911	119	38	B	F	0.2244	149.7	1.10	656	19.0	144.5	1.07	588	20.0	137.3	1.01	537	20.7	127.6	0.94
130	140	653	19.9	19.1	15.2	15.8	16.1	2.65	6.3	9.1	0.40	5.86	20.4	84	3.91	0.248	0.243	4.6	0.23	1998	911	119	38	B	F	0.2360	154.1	1.10	643	19.4	148.9	1.06	582	20.3	141.9	1.01	536	20.9	132.6	0.94
135	145	639	20.3	19.5	15.4	16.0	16.3	2.70	6.4	9.2	0.40	6.05	20.7	84	3.96	0.247	0.242	4.6	0.23	2028	911	120	39	B	F	0.2473	158.0	1.09	630	19.7	152.8	1.05	575	20.6	146.0	1.00	533	21.2	137.1	0.94
140	150	626	20.7	19.9	15.6	16.2	16.5	2.74	6.4	9.3	0.40	6.24	21.1	83	4.00	0.246	0.242	4.6	0.23	2056	911	120	39	B	F	0.2586	161.9	1.08	618	20.1	156.7	1.04	568	20.9	150.0	1.00	529	21.5	141.4	0.94
145	155	613	21.1	20.3	15.8	16.4	16.7	2.78	6.5	9.4	0.40	6.43	21.4	82	4.04	0.246	0.242	4.7	0.24	2082	911	121	39	B	F	0.2697	165.3	1.06	606	20.4	160.2	1.03	561	21.2	153.7	0.99	525	21.8	145.4	0.94
150	160	600	21.4	20.6	16.0	16.6	16.9	2.82	6.5	9.5	0.40	6.61	21.6	82	4.08	0.246	0.241	4.7	0.24	2106	911	121	40	B	F	0.2807	168.4	1.05	594	20.8	163.2	1.02	552	21.6	156.8	0.98	520	22.1	149.0	0.93
155	165	588	21.8	21.0	16.2	16.8	17.1	2.86	6.6	9.6	0.40	6.80	21.9	81	4.12	0.246	0.241	4.7	0.24	2129	911	121	40	B	F	0.2915	171.4	1.04	583	21.1	166.3	1.00	545	21.8	160.0	0.97	515	22.4	152.4	0.92
160	170	577	22.1	21.3	16.4	17.0	17.3	2.90	6.6	9.7	0.40	6.98	22.2	80	4.16	0.246	0.241	4.7	0.24	2151	911	122	40	B	F	0.3021	174.3	1.02	572	21.4	169.2	0.99	537	22.2	163.0	0.96	510	22.6	155.7	0.91
165	175	566	22.5	21.6	16.5	17.1	17.4	2.94	6.6	9.7	0.40	7.16	22.4	80	4.20	0.246	0.241	4.7	0.25	2171	911	122	41	B	F	0.3127	177.0	1.01	562	21.7	171.9	0.98	530	22.4	165.7	0.94	504	22.9	158.7	0.90
170	180	555	22.8	21.9	16.7	17.3	17.6	2.97	6.7	9.8	0.40	7.33	22.6	79	4.24	0.246	0.242	4.7	0.25	2190	911	122	41	B	F	0.3231	179.3	0.99	551	22.1	174.2	0.97	522	22.7	168.1	0.93	498	23.2	161.3	0.89
175	185	545	23.1	22.3	16.8	17.4	17.7	3.01	6.7	9.9	0.40	7.51	22.9	78	4.28	0.246	0.242	4.8	0.25	2209	911	122	41	B	F	0.3332	181.6	0.98	541	22.4	176.5	0.95	515	23.0	170.5	0.92	492	23.5	163.9	0.88
180	190	535	23.4	22.6	17.0	17.6	17.9	3.04	6.8	9.9	0.40	7.68	23.1	77	4.32	0.246	0.242	4.8	0.25	2226	911	122	41	B	F	0.3432	183.6	0.96	532	22.7	178.5	0.94	507	23.3	172.6	0.91	486	23.7	166.3	0.87

Table A20. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Utilization standard (Util. std.) = 0/0 (total volume)

SI = 10 m Initial Density = 1600 stems/ha

Bh age	Total age	N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR
5	15	1596	1.6	1.5	2.0	2.2	2.3	0.71	1.6	0.3	0.86	0.40	0.3	152	2.50	1.125	1.100	0.3	0.00	222	1365	14	6	A	F
10	20	1587	3.0	2.8	2.9	3.2	3.3	0.81	2.2	0.6	0.78	0.53	1.1	115	2.51	0.781	0.761	0.6	0.01	325	1365	26	8	A	F
15	25	1572	4.2	4.0	3.8	4.2	4.3	0.92	2.7	1.0	0.72	0.69	2.2	107	2.52	0.602	0.586	1.1	0.02	446	1365	38	11	A	F
20	30	1553	5.4	5.0	4.6	5.1	5.3	1.03	3.1	1.6	0.66	0.87	3.5	104	2.54	0.495	0.480	1.5	0.03	578	1365	50	14	A	F
25	35	1529	6.4	6.0	5.5	6.0	6.2	1.14	3.5	2.1	0.61	1.07	4.9	102	2.56	0.425	0.412	1.9	0.05	715	1365	61	16	A	F
30	40	1502	7.3	6.9	6.2	6.9	7.1	1.24	3.8	2.7	0.57	1.27	6.3	102	2.58	0.376	0.365	2.3	0.07	853	1365	72	19	A	F
35	45	1471	8.2	7.7	7.0	7.6	7.9	1.34	4.0	3.3	0.54	1.48	7.8	101	2.61	0.341	0.331	2.7	0.08	988	1365	82	22	A	F
40	50	1438	9.0	8.5	7.7	8.4	8.6	1.43	4.2	3.8	0.51	1.69	9.2	100	2.64	0.315	0.305	3.1	0.10	1119	1365	90	24	A	F
45	55	1402	9.8	9.3	8.3	9.1	9.3	1.51	4.3	4.3	0.49	1.90	10.6	100	2.67	0.295	0.286	3.4	0.11	1243	1365	98	27	A	F
50	60	1365	10.5	10.0	8.9	9.7	10.0	1.59	4.5	4.8	0.47	2.11	11.9	99	2.71	0.279	0.271	3.7	0.13	1360	1365	105	29	A	F
55	65	1327	11.2	10.6	9.5	10.3	10.6	1.67	4.6	5.3	0.46	2.33	13.1	99	2.75	0.267	0.259	3.9	0.14	1468	1365	111	31	B	F
60	70	1288	11.9	11.3	10.0	10.8	11.2	1.75	4.7	5.7	0.45	2.54	14.3	98	2.79	0.257	0.249	4.1	0.16	1568	1365	117	33	B	F
65	75	1249	12.5	11.9	10.5	11.3	11.7	1.82	4.8	6.1	0.43	2.75	15.4	97	2.83	0.249	0.242	4.3	0.17	1660	1365	121	34	B	F
70	80	1210	13.1	12.5	11.0	11.8	12.2	1.89	4.9	6.5	0.43	2.96	16.4	97	2.87	0.243	0.236	4.5	0.18	1744	1365	125	36	B	F
75	85	1172	13.7	13.1	11.5	12.3	12.6	1.95	5.0	6.8	0.42	3.17	17.3	96	2.92	0.238	0.231	4.7	0.19	1820	1365	129	37	B	F
80	90	1134	14.3	13.6	11.9	12.7	13.1	2.01	5.1	7.1	0.41	3.38	18.1	95	2.97	0.234	0.227	4.8	0.20	1888	1365	131	38	B	F
85	95	1098	14.8	14.1	12.3	13.1	13.5	2.08	5.2	7.4	0.41	3.59	18.9	94	3.02	0.231	0.224	4.9	0.21	1950	1365	134	39	B	F
90	100	1062	15.3	14.6	12.6	13.5	13.8	2.13	5.3	7.7	0.40	3.79	19.6	94	3.07	0.228	0.222	5.0	0.22	2006	1365	136	40	B	F
95	105	1027	15.8	15.1	13.0	13.8	14.2	2.19	5.4	7.9	0.40	4.00	20.2	93	3.12	0.226	0.220	5.1	0.23	2056	1365	137	41	B	F
100	110	994	16.3	15.6	13.3	14.1	14.5	2.25	5.5	8.2	0.39	4.20	20.8	92	3.17	0.225	0.219	5.1	0.23	2100	1365	138	42	B	F
105	115	962	16.8	16.1	13.6	14.4	14.8	2.30	5.5	8.4	0.39	4.40	21.3	91	3.22	0.223	0.218	5.2	0.24	2140	1365	139	42	B	F
110	120	931	17.2	16.5	13.9	14.7	15.1	2.35	5.6	8.6	0.39	4.60	21.7	90	3.28	0.223	0.217	5.2	0.24	2176	1365	140	43	B	F
115	125	901	17.7	17.0	14.2	15.0	15.4	2.40	5.7	8.8	0.39	4.80	22.1	90	3.33	0.222	0.217	5.3	0.25	2208	1365	140	43	B	F
120	130	873	18.1	17.4	14.5	15.2	15.6	2.45	5.8	8.9	0.39	5.00	22.5	89	3.38	0.222	0.217	5.3	0.25	2236	1365	140	44	B	F
125	135	847	18.5	17.8	14.7	15.5	15.9	2.50	5.8	9.1	0.39	5.19	22.9	88	3.44	0.222	0.217	5.3	0.26	2262	1365	140	44	B	F
130	140	821	19.0	18.2	14.9	15.7	16.1	2.55	5.9	9.2	0.38	5.39	23.2	87	3.49	0.222	0.217	5.3	0.26	2285	1365	140	44	B	F
135	145	797	19.4	18.6	15.2	15.9	16.3	2.59	6.0	9.3	0.38	5.58	23.5	86	3.54	0.222	0.217	5.3	0.26	2306	1365	140	44	B	F
140	150	774	19.8	19.0	15.4	16.1	16.5	2.64	6.0	9.4	0.38	5.77	23.7	85	3.59	0.223	0.218	5.3	0.27	2324	1365	140	45	B	F
145	155	752	20.1	19.4	15.6	16.3	16.7	2.68	6.1	9.5	0.38	5.96	24.0	85	3.65	0.223	0.218	5.3	0.27	2341	1365	139	45	B	F
150	160	731	20.5	19.7	15.8	16.5	16.9	2.72	6.1	9.6	0.38	6.15	24.2	84	3.70	0.224	0.219	5.3	0.27	2356	1365	139	45	B	F
155	165	711	20.9	20.1	16.0	16.7	17.1	2.76	6.2	9.7	0.38	6.33	24.4	83	3.75	0.224	0.220	5.3	0.27	2370	1365	138	45	B	F
160	170	692	21.2	20.4	16.1	16.9	17.3	2.80	6.3	9.8	0.38	6.52	24.5	82	3.80	0.225	0.220	5.3	0.27	2383	1365	138	45	B	F
165	175	675	21.6	20.8	16.3	17.0	17.4	2.84	6.3	9.9	0.39	6.70	24.7	82	3.85	0.226	0.221	5.3	0.27	2395	1365	138	45	B	F
170	180	658	21.9	21.1	16.5	17.2	17.6	2.88	6.4	9.9	0.39	6.88	24.9	81	3.90	0.227	0.222	5.3	0.28	2406	1365	137	45	B	F
175	185	642	22.3	21.4	16.6	17.3	17.7	2.92	6.4	10.0	0.39	7.06	25.0	80	3.95	0.228	0.223	5.3	0.28	2416	1365	136	45	B	F
180	190	626	22.6	21.8	16.8	17.5	17.9	2.95	6.5	10.0	0.39	7.23	25.1	79	4.00	0.229	0.224	5.3	0.28	2426	1365	136	45	B	F

Bh age	V/tree	V/ha	Mai	Util. std. = 8/6 N	D	V/ha	Mai	Util. std. = 13/7 N	D	V/ha	Mai	Util. std = 15/10 N	D	V/ha	Mai
5	0.0002	0.3	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	0.0011	1.7	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	0.0029	4.5	0.18	3	8.9	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	0.0057	8.9	0.29	92	8.9	1.3	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	0.0096	14.7	0.41	327	9.1	5.5	0.15	5	12.7	0.2	0.01	0	0.0	0.0	0.00
30	0.0146	21.9	0.54	578	9.4	12.2	0.30	29	13.1	1.4	0.03	4	14.6	0.2	0.00
35	0.0205	30.1	0.66	775	9.8	20.5	0.45	85	13.3	4.6	0.10	19	14.9	1.1	0.02
40	0.0272	39.1	0.77	913	10.3	29.7	0.59	170	13.6	10.3	0.20	53	15.1	3.5	0.07
45	0.0347	48.6	0.88	1003	10.8	39.5	0.71	267	13.9	18.2	0.33	106	15.3	7.9	0.14
50	0.0427	58.3	0.96	1057	11.3	49.6	0.82	366	14.2	27.6	0.46	172	15.6	14.1	0.23
55	0.0514	68.2	1.04	1087	11.8	59.7	0.91	457	14.5	38.1	0.58	244	15.9	22.0	0.34
60	0.0605	77.9	1.11	1099	12.3	69.7	0.99	535	14.8	48.9	0.69	316	16.1	31.1	0.44
65	0.0701	87.5	1.16	1098	12.8	79.5	1.05	599	15.2	59.8	0.79	384	16.4	40.9	0.54
70	0.0800	96.8	1.20	1089	13.3	89.0	1.11	651	15.5	70.5	0.88	444	16.7	51.1	0.63
75	0.0902	105.7	1.24	1073	13.7	98.1	1.15	690	15.8	80.8	0.95	495	17.0	61.3	0.72
80	0.1006	114.1	1.26	1053	14.2	106.7	1.18	719	16.2	90.6	1.00	538	17.2	71.4	0.79
85	0.1113	122.2	1.28	1031	14.7	115.0	1.20	739	16.5	100.0	1.05	573	17.5	81.2	0.85
90	0.1221	129.7	1.29	1007	15.1	122.6	1.22	752	16.9	108.7	1.08	600	17.8	90.5	0.90
95	0.1331	136.7	1.30	981	15.6	129.7	1.23	758	17.2	116.7	1.11	620	18.1	99.2	0.94
100	0.1442	143.3	1.30	955	16.0	136.5	1.24	760	17.5	124.3	1.12	635	18.4	107.5	0.97
105	0.1553	149.4	1.29	929	16.4	142.7	1.24	757	17.9	131.2	1.14	644	18.7	115.2	1.00
110	0.1666	155.1	1.29	903	16.8	148.4	1.23	752	18.2	137.6	1.14	650	19.0	122.4	1.02
115	0.1778	160.2	1.28	877	17.3	153.7	1.22	744	18.5	143.4	1.14	652	19.3	128.9	1.03
120	0.1890	165.0	1.26	852	17.7	158.6	1.22	734	18.9	148.8	1.14	651	19.6	135.0	1.03
125	0.2002	169.6	1.25	829	18.1	163.3	1.21	724	19.2	153.9	1.14	649	19.9	140.8	1.04
130	0.2114	173.6	1.24	805	18.4	167.3	1.19	712	19.5	158.4	1.13	644	20.2	145.9	1.04
135	0.2226	177.4	1.22	783	18.8	171.2	1.18	700	19.8	162.6	1.12	639	20.5	150.8	1.04
140	0.2336	180.8	1.20	762	19.2	174.7	1.16	688	20.2	166.4	1.11	632	20.8	155.2	1.03
145	0.2445	183.9	1.18	742	19.5	177.9	1.14	675	20.5	169.9	1.09	624	21.1	159.2	1.02
150	0.2554	186.7	1.16	722	19.9	180.7	1.13	662	20.8	173.0	1.08	615	21.4	162.8	1.01
155	0.2662	189.3	1.14	703	20.2	183.3	1.11	649	21.1	175.8	1.06	606	21.7	166.1	1.00
160	0.2769	191.6	1.12	685	20.6	185.7	1.09	636	21.4	178.4	1.05	597	21.9	169.1	0.99
165	0.2874	194.0	1.11	669	20.9	188.2	1.07	624	21.7	181.0	1.03	589	22.2	172.2	0.98
170	0.2979	196.0	1.09	652	21.3	190.2	1.05	612	22.0	183.2	1.02	579	22.5	174.7	0.97
175	0.3081	197.8	1.07	637	21.6	192.0	1.04	600	22.3	185.2	1.00	570	22.8	177.1	0.95
180	0.3182	199.2	1.05	621	21.9	193.5	1.02	588	22.6	186.7	0.98	560	23.0	179.0	0.94

SI = 10 m Initial Density = 2000 stems/ha

Bh age	Total age	N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR
5	15	1994	1.5	1.4	2.0	2.2	2.3	0.70	1.6	0.3	0.85	0.39	0.4	160	2.24	1.007	0.984	0.3	0.00	274	1647	17	8	A	F
10	20	1979	2.8	2.6	2.9	3.2	3.3	0.80	2.1	0.6	0.77	0.51	1.3	119	2.25	0.701	0.682	0.7	0.01	391	1647	30	10	A	F
15	25	1957	4.0	3.8	3.7	4.2	4.3	0.90	2.6	1.1	0.70	0.66	2.5	110	2.26	0.541	0.525	1.2	0.02	529	1647	45	13	A	F
20	30	1928	5.1	4.8	4.6	5.1	5.3	1.01	3.0	1.6	0.64	0.83	3.9	107	2.28	0.445	0.431	1.7	0.04	678	1647	58	16	A	F
25	35	1892	6.1	5.7	5.4	6.0	6.2	1.11	3.3	2.2	0.60	1.01	5.5	105	2.30	0.383	0.370	2.2	0.06	831	1647	71	19	A	F
30	40	1850	7.0	6.6	6.2	6.8	7.1	1.20	3.6	2.7	0.56	1.19	7.1	104	2.32	0.340	0.329	2.7	0.07	985	1647	83	22	A	F
35	45	1804	7.8	7.4	6.9	7.6	7.9	1.30	3.8	3.3	0.52	1.39	8.7	104	2.35	0.309	0.298	3.1	0.09	1134	1647	94	25	A	F
40	50	1754	8.6	8.1	7.6	8.4	8.6	1.38	4.0	3.9	0.50	1.59	10.3	103	2.39	0.286	0.276	3.5	0.11	1276	1647	104	28	A	F
45	55	1702	9.4	8.9	8.2	9.0	9.3	1.47	4.1	4.4	0.48	1.79	11.8	102	2.42	0.268	0.259	3.8	0.13	1410	1647	113	30	B	F
50	60	1647	10.1	9.6	8.9	9.7	10.0	1.55	4.2	4.9	0.46	1.99	13.2	102	2.46	0.255	0.246	4.2	0.15	1534	1647	120	33	B	F
55	65	1592	10.8	10.2	9.4	10.3	10.6	1.62	4.4	5.3	0.44	2.19	14.5	101	2.51	0.244	0.236	4.4	0.16	1649	1647	127	35	B	F
60	70	1536	11.4	10.8	10.0	10.8	11.2	1.70	4.5	5.8	0.43	2.39	15.8	100	2.55	0.236	0.228	4.7	0.18	1753	1647	132	37	B	F
65	75	1481	12.0	11.5	10.5	11.3	11.7	1.77	4.6	6.1	0.42	2.60	16.9	99	2.60	0.230	0.222	4.9	0.19	1847	1647	137	38	B	F
70	80	1427	12.6	12.0	10.9	11.8	12.2	1.83	4.7	6.5	0.41	2.80	17.9	99	2.65	0.224	0.217	5.0	0.20	1931	1647	141	40	B	F
75	85	1373	13.2	12.6	11.4	12.2	12.6	1.90	4.8	6.9	0.40	3.00	18.9	98	2.70	0.220	0.214	5.2	0.21	2006	1647	144	41	B	F
80	90	1322	13.8	13.1	11.8	12.7	13.1	1.96	4.9	7.2	0.40	3.20	19.7	97	2.75	0.217	0.211	5.3	0.22	2073	1647	146	42	B	F
85	95	1271	14.3	13.7	12.2	13.1	13.5	2.02	5.0	7.5	0.39	3.40	20.5	96	2.80	0.215	0.208	5.4	0.23	2133	1647	148	43	B	F
90	100	1223	14.8	14.2	12.5	13.4	13.8	2.08	5.1	7.7	0.39	3.61	21.1	95	2.86	0.213	0.207	5.5	0.24	2185	1647	150	44	B	F
95	105	1177	15.3	14.7	12.9	13.8	14.2	2.14	5.2	8.0	0.39	3.81	21.8	94	2.91	0.212	0.206	5.6	0.25	2231	1647	151	45	B	F
100	110	1133	15.8	15.1	13.2	14.1	14.5	2.19	5.2	8.2	0.38	4.01	22.3	94	2.97	0.211	0.205	5.6	0.25	2271	1647	151	45	B	F
105	115	1091	16.3	15.6	13.5	14.4	14.8	2.25	5.3	8.4	0.38	4.20	22.8	93	3.03	0.210	0.204	5.6	0.26	2306	1647	152	46	B	F
110	120	1051	16.8	16.1	13.8	14.7	15.1	2.30	5.4	8.6	0.38	4.40	23.2	92	3.08	0.210	0.204	5.7	0.26	2337	1647	152	46	B	F
115	125	1013	17.2	16.5	14.1	15.0	15.4	2.35	5.5	8.8	0.38	4.60	23.6	91	3.14	0.210	0.204	5.7	0.27	2364	1647	152	47	B	F
120	130	977	17.7	16.9	14.3	15.2	15.6	2.40	5.6	9.0	0.38	4.79	23.9	90	3.20	0.210	0.205	5.7	0.27	2387	1647	151	47	B	F
125	135	943	18.1	17.4	14.6	15.4	15.9	2.45	5.6	9.1	0.38	4.99	24.3	89	3.26	0.211	0.205	5.7	0.27	2407	1647	151	47	B	F
130	140	911	18.5	17.8	14.8	15.7	16.1	2.50	5.7	9.2	0.38	5.18	24.5	88	3.31	0.211	0.206	5.7	0.28	2425	1647	150	47	B	F
135	145	881	18.9	18.2	15.0	15.9	16.3	2.54	5.8	9.4	0.38	5.37	24.8	87	3.37	0.212	0.206	5.7	0.28	2441	1647	150	47	B	F
140	150	852	19.3	18.6	15.3	16.1	16.5	2.59	5.8	9.5	0.38	5.56	25.0	87	3.43	0.213	0.207	5.7	0.28	2454	1647	149	47	B	F
145	155	825	19.7	18.9	15.5	16.3	16.7	2.63	5.9	9.6	0.38	5.75	25.2	86	3.48	0.214	0.208	5.7	0.28	2466	1647	148	47	B	F
150	160	800	20.1	19.3	15.7	16.5	16.9	2.67	6.0	9.7	0.38	5.94	25.4	85	3.54	0.214	0.209	5.7	0.28	2477	1647	148	47	B	F
155	165	776	20.5	19.7	15.8	16.7	17.1	2.72	6.0	9.8	0.38	6.12	25.5	84	3.59	0.215	0.210	5.6	0.29	2486	1647	147	47	B	F
160	170	753	20.8	20.0	16.0	16.8	17.3	2.76	6.1	9.8	0.38	6.30	25.7	83	3.64	0.216	0.211	5.6	0.29	2494	1647	146	47	B	F
165	175	731	21.2	20.4	16.2	17.0	17.4	2.80	6.2	9.9	0.38	6.49	25.8	83	3.70	0.218	0.212	5.6	0.29	2502	1647	145	47	B	F
170	180	711	21.5	20.7	16.3	17.2	17.6	2.84	6.2	10.0	0.38	6.67	25.9	82	3.75	0.219	0.214	5.6	0.29	2509	1647	144	47	B	F
175	185	692	21.9	21.1	16.5	17.3	17.7	2.87	6.3	10.0	0.38	6.85	26.0	81	3.80	0.220	0.215	5.6	0.29	2515	1647	144	47	B	F
180	190	674	22.2	21.4	16.6	17.4	17.9	2.91	6.3	10.0	0.38	7.02	26.1	80	3.85	0.221	0.216	5.5	0.29	2521	1647	143	47	B	F

Bh age	V/tree	V/ha	Mai	Util. std. = 8/6 N	D	V/ha	Mai	Util. std. = 13/7 N	D	V/ha	Mai	Util. std = 15/10 N	D	V/ha	Mai
5	0.0002	0.3	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	0.0009	1.8	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	0.0026	5.0	0.20	2	8.6	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	0.0051	9.8	0.32	75	8.8	1.0	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	0.0086	16.3	0.46	321	8.9	5.1	0.14	3	12.5	0.1	0.00	0	0.0	0.0	0.00
30	0.0131	24.2	0.60	617	9.2	12.2	0.30	20	13.0	0.9	0.02	2	14.4	0.1	0.00
35	0.0184	33.2	0.73	864	9.6	21.2	0.47	69	13.2	3.6	0.08	12	14.8	0.7	0.02
40	0.0245	43.0	0.85	1041	10.0	31.3	0.62	151	13.4	8.9	0.18	40	15.0	2.6	0.05
45	0.0313	53.3	0.96	1158	10.5	42.1	0.76	255	13.7	16.8	0.30	88	15.2	6.4	0.12
50	0.0388	63.9	1.06	1229	11.0	53.1	0.88	365	14.0	26.6	0.44	154	15.4	12.2	0.20
55	0.0468	74.5	1.14	1267	11.4	64.2	0.98	471	14.3	37.7	0.58	231	15.7	20.1	0.31
60	0.0553	84.9	1.20	1281	11.9	75.0	1.06	564	14.6	49.4	0.70	311	15.9	29.4	0.42
65	0.0642	95.1	1.26	1279	12.4	85.6	1.13	643	14.9	61.3	0.81	388	16.2	39.7	0.53
70	0.0735	104.9	1.30	1265	12.9	95.7	1.19	706	15.2	73.0	0.91	458	16.4	50.6	0.63
75	0.0832	114.2	1.34	1242	13.3	105.3	1.23	754	15.5	84.2	0.98	519	16.7	61.5	0.72
80	0.0931	123.1	1.36	1216	13.8	114.5	1.27	790	15.9	94.9	1.05	570	17.0	72.4	0.80
85	0.1033	131.3	1.38	1184	14.3	122.9	1.29	814	16.2	104.8	1.10	611	17.3	82.8	0.87
90	0.1137	139.0	1.38	1151	14.7	130.9	1.30	829	16.5	114.1	1.14	644	17.5	92.9	0.92
95	0.1242	146.2	1.39	1117	15.1	138.3	1.31	837	16.9	122.8	1.16	669	17.8	102.3	0.97
100	0.1350	152.9	1.38	1083	15.6	145.2	1.31	839	17.2	130.7	1.18	687	18.1	111.2	1.01
105	0.1457	159.0	1.38	1049	16.0	151.5	1.31	836	17.5	138.0	1.19	698	18.4	119.4	1.03
110	0.1566	164.6	1.37	1015	16.4	157.2	1.30	829	17.9	144.7	1.20	705	18.7	127.0	1.05
115	0.1675	169.7	1.35	983	16.8	162.5	1.29	819	18.2	150.7	1.20	708	19.0	134.0	1.07
120	0.1785	174.4	1.34	951	17.2	167.4	1.28	807	18.5	156.2	1.20	707	19.3	140.4	1.08
125	0.1895	178.7	1.32	921	17.6	171.8	1.27	793	18.8	161.2	1.19	703	19.6	146.3	1.08
130	0.2005	182.7	1.30	892	18.0	175.9	1.25	779	19.2	165.8	1.18	698	19.9	151.7	1.08
135	0.2115	186.3	1.28	864	18.4	179.6	1.23	764	19.5	170.0	1.17	691	20.2	156.6	1.08
140	0.2224	189.5	1.26	837	18.8	182.9	1.22	748	19.8	173.7	1.15	682	20.5	161.0	1.07
145	0.2332	192.4	1.24	812	19.1	185.9	1.20	733	20.1	177.1	1.14	673	20.8	165.1	1.06
150	0.2440	195.2	1.22	789	19.5	188.8	1.18	717	20.4	180.2	1.12	663	21.0	168.9	1.05
155	0.2546	197.6	1.19	766	19.9	191.3	1.16	702	20.7	183.1	1.11	652	21.3	172.2	1.04
160	0.2652	199.7	1.17	744	20.2	193.5	1.13	686	21.0	185.5	1.09	641	21.6	175.2	1.03
165	0.2756	201.5	1.15	723	20.5	195.4	1.11	671	21.3	187.6	1.07	630	21.9	177.8	1.01
170	0.2861	203.4	1.13	704	20.9	197.3	1.09	657	21.6	189.7	1.05	619	22.2	180.4	1.00
175	0.2962	205.0	1.11	686	21.2	199.0	1.07	643	21.9	191.6	1.03	608	22.4	182.7	0.98
180	0.3064	206.5	1.08	668	21.5	200.5	1.05	629	22.2	193.3	1.01	598	22.7	184.8	0.97

Table A21. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 10 m Initial Density = 3000 stems/ha																																								
5	15	2988	1.3	1.2	2.0	2.2	2.3	0.69	1.5	0.3	0.82	0.38	0.4	175	1.83	0.825	0.804	0.4	0.00	398	2306	23	11	A	F	0.0001	0.4	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	2958	2.6	2.4	2.8	3.2	3.3	0.78	2.0	0.7	0.74	0.48	1.5	128	1.84	0.575	0.558	1.0	0.02	548	2306	41	14	A	F	0.0007	2.2	0.11	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	2912	3.7	3.4	3.7	4.2	4.3	0.87	2.4	1.1	0.67	0.61	3.1	117	1.85	0.445	0.430	1.6	0.03	721	2306	59	18	A	F	0.0020	5.9	0.23	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	2852	4.6	4.3	4.5	5.1	5.3	0.96	2.8	1.7	0.61	0.75	4.8	113	1.87	0.367	0.354	2.2	0.05	905	2306	77	21	A	F	0.0041	11.7	0.38	43	8.6	0.5	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	2779	5.6	5.2	5.3	6.0	6.2	1.06	3.0	2.2	0.56	0.91	6.7	111	1.90	0.317	0.306	2.9	0.07	1093	2306	94	25	A	F	0.0070	19.4	0.55	280	8.7	4.1	0.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	40	2695	6.4	6.0	6.1	6.8	7.1	1.14	3.2	2.8	0.53	1.07	8.7	109	1.93	0.283	0.272	3.4	0.09	1276	2306	109	29	A	F	0.0106	28.7	0.71	651	8.9	11.5	0.28	8	12.8	0.4	0.01	0	0.0	0.0	0.00
35	45	2604	7.2	6.8	6.8	7.6	7.9	1.23	3.4	3.4	0.49	1.24	10.6	108	1.96	0.258	0.248	4.0	0.12	1452	2306	122	32	B	F	0.0151	39.3	0.86	1005	9.2	21.7	0.48	39	13.0	2.0	0.04	5	14.5	0.3	0.01
40	50	2508	8.0	7.5	7.4	8.3	8.6	1.31	3.6	3.9	0.47	1.42	12.5	108	2.00	0.240	0.231	4.4	0.14	1616	2306	134	36	B	F	0.0202	50.7	1.00	1278	9.6	33.6	0.67	107	13.2	6.0	0.12	20	14.8	1.2	0.02
45	55	2408	8.7	8.2	8.1	9.0	9.3	1.39	3.7	4.4	0.45	1.60	14.2	107	2.04	0.227	0.218	4.8	0.16	1767	2306	144	38	B	F	0.0260	62.6	1.13	1466	10.0	46.2	0.83	211	13.4	13.1	0.24	55	15.0	3.8	0.07
50	60	2306	9.4	8.9	8.7	9.6	10.0	1.46	3.9	4.9	0.43	1.78	15.8	106	2.08	0.216	0.208	5.2	0.18	1904	2306	152	41	B	F	0.0324	74.7	1.23	1582	10.4	59.1	0.98	336	13.7	23.0	0.38	113	15.1	8.5	0.14
55	65	2204	10.0	9.5	9.2	10.2	10.6	1.54	4.0	5.4	0.42	1.96	17.3	105	2.13	0.209	0.201	5.5	0.20	2027	2306	159	43	B	F	0.0393	86.7	1.32	1644	10.9	71.9	1.10	467	13.9	34.9	0.53	190	15.3	15.6	0.24
60	70	2104	10.6	10.1	9.8	10.8	11.2	1.61	4.1	5.8	0.41	2.15	18.7	104	2.18	0.203	0.195	5.7	0.21	2135	2306	165	45	B	F	0.0468	98.4	1.40	1667	11.3	84.4	1.20	590	14.2	48.1	0.68	278	15.6	24.7	0.35
65	75	2006	11.2	10.7	10.2	11.3	11.7	1.68	4.2	6.2	0.40	2.33	19.9	103	2.23	0.198	0.191	5.9	0.23	2230	2306	169	47	B	F	0.0546	109.6	1.45	1663	11.7	96.4	1.28	698	14.5	61.6	0.82	370	15.8	35.4	0.47
70	80	1912	11.8	11.2	10.7	11.7	12.2	1.74	4.3	6.6	0.39	2.52	21.0	102	2.29	0.195	0.188	6.1	0.24	2312	2306	172	48	B	F	0.0629	120.3	1.49	1640	12.2	107.8	1.34	788	14.7	75.2	0.93	459	16.0	47.2	0.59
75	85	1821	12.4	11.8	11.1	12.2	12.6	1.81	4.4	6.9	0.38	2.71	22.0	101	2.34	0.192	0.185	6.2	0.25	2383	2306	175	49	B	F	0.0716	130.4	1.53	1604	12.6	118.5	1.39	859	15.0	88.3	1.03	539	16.3	59.4	0.69
80	90	1735	12.9	12.3	11.6	12.6	13.1	1.87	4.5	7.2	0.38	2.90	22.8	100	2.40	0.191	0.184	6.3	0.26	2444	2306	177	50	C	F	0.0806	139.8	1.54	1560	13.1	128.5	1.42	912	15.3	100.7	1.11	609	16.5	71.6	0.79
85	95	1652	13.5	12.9	11.9	13.0	13.5	1.93	4.6	7.5	0.37	3.09	23.6	99	2.46	0.190	0.183	6.4	0.27	2495	2306	177	51	C	F	0.0899	148.5	1.56	1511	13.5	137.7	1.44	949	15.7	112.1	1.17	667	16.8	83.6	0.88
90	100	1575	14.0	13.4	12.3	13.3	13.8	1.99	4.7	7.8	0.37	3.28	24.2	98	2.52	0.189	0.182	6.5	0.28	2539	2306	178	52	C	F	0.0994	156.6	1.56	1460	14.0	146.2	1.45	974	16.0	122.9	1.22	714	17.1	95.1	0.95
95	105	1501	14.5	13.8	12.6	13.7	14.2	2.04	4.8	8.0	0.37	3.48	24.8	97	2.58	0.189	0.182	6.5	0.28	2575	2306	178	52	C	F	0.1092	163.9	1.55	1406	14.4	153.9	1.46	986	16.3	132.6	1.26	750	17.3	105.9	1.00
100	110	1433	15.0	14.3	13.0	14.0	14.5	2.10	4.9	8.3	0.37	3.67	25.3	96	2.64	0.189	0.182	6.5	0.29	2605	2306	178	53	C	F	0.1191	170.7	1.54	1354	14.8	161.1	1.46	990	16.6	141.5	1.28	776	17.6	116.0	1.05
105	115	1368	15.5	14.8	13.3	14.3	14.8	2.15	5.0	8.5	0.36	3.86	25.7	95	2.70	0.189	0.183	6.5	0.30	2630	2306	177	53	C	F	0.1292	176.8	1.53	1303	15.3	167.5	1.45	987	16.9	149.5	1.29	794	17.9	125.3	1.08
110	120	1307	15.9	15.3	13.6	14.6	15.1	2.21	5.1	8.7	0.36	4.05	26.1	94	2.77	0.189	0.183	6.5	0.30	2649	2306	176	53	C	F	0.1395	182.3	1.51	1252	15.7	173.3	1.44	978	17.2	156.7	1.30	805	18.2	133.9	1.11
115	125	1250	16.4	15.7	13.8	14.9	15.4	2.26	5.1	8.8	0.36	4.24	26.4	93	2.83	0.190	0.184	6.5	0.30	2665	2306	175	53	C	F	0.1498	187.2	1.49	1204	16.1	178.6	1.42	965	17.6	163.2	1.30	810	18.4	141.7	1.13
120	130	1197	16.8	16.1	14.1	15.1	15.6	2.31	5.2	9.0	0.36	4.43	26.7	93	2.89	0.191	0.185	6.5	0.30	2678	2306	174	53	C	F	0.1602	191.8	1.47	1158	16.5	183.4	1.41	949	17.9	169.0	1.30	810	18.7	148.8	1.14
125	135	1148	17.3	16.6	14.3	15.4	15.9	2.36	5.3	9.2	0.36	4.62	26.9	92	2.95	0.192	0.186	6.5	0.31	2688	2306	173	53	C	F	0.1707	196.0	1.45	1115	16.9	187.8	1.39	932	18.2	174.4	1.29	807	19.0	155.3	1.15
130	140	1101	17.7	17.0	14.6	15.6	16.1	2.40	5.4	9.3	0.36	4.81	27.1	91	3.01	0.193	0.187	6.4	0.31	2695	2306	171	53	C	F	0.1812	199.5	1.42	1072	17.3	191.5	1.36	912	18.5	178.9	1.27	800	19.3	161.0	1.15
135	145	1058	18.1	17.4	14.8	15.8	16.3	2.45	5.5	9.4	0.36	4.99	27.3	90	3.07	0.194	0.188	6.4	0.31	2701	2306	170	53	C	F	0.1917	202.8	1.39	1033	17.7	195.0	1.34	892	18.8	183.2	1.26	791	19.6	166.3	1.14
140	150	1017	18.5	17.8	15.0	16.0	16.5	2.50	5.5	9.5	0.36	5.18	27.4	89	3.14	0.196	0.190	6.4	0.31	2704	2306	168	53	C	F	0.2023	205.7	1.37	996	18.0	198.0	1.32	871	19.2	186.8	1.24	780	19.9	170.9	1.14
145	155	979	18.9	18.2	15.2	16.2	16.7	2.54	5.6	9.6	0.36	5.36	27.5	88	3.20	0.197	0.191	6.3	0.31	2707	2306	167	53	C	F	0.2127	208.2	1.34	961	18.4	200.8	1.29	850	19.5	190.1	1.22	768	20.2	175.2	1.13
150	160	944	19.3	18.5	15.4	16.4	16.9	2.58	5.7	9.7	0.36	5.55	27.6	87	3.25	0.198	0.193	6.3	0.31	2708	2306	165	52	C	F	0.2232	210.7	1.31	928	18.8	203.3	1.27	829	19.8	193.2	1.20	756	20.4	179.1	1.12
155	165	911	19.7	18.9	15.6	16.6	17.1	2.63	5.7	9.8	0.36	5.73	27.7	86	3.31	0.200	0.194	6.2	0.31	2709	2306	164	52	C	F	0.2336	212.8	1.29	897	19.1	205.6	1.24	809	20.1	195.9	1.18	742	20.7	182.5	1.10
160	170	879	20.1	19.3	15.7	16.7	17.3	2.67	5.8	9.9	0.37	5.91	27.8	85	3.37	0.201	0.196	6.2	0.31	2709	2306	162	52	C	F	0.2438	214.3	1.26	867	19.5	207.3	1.22	788	20.4	198.0	1.16	728	21.0	185.4	1.09
165	175	850	20.4	19.6	15.9	16.9	17.4	2.71	5.9	9.9	0.37	6.09	27.8	84	3.43	0.203	0.197	6.2	0.31	2708	2306	160	52	C	F	0.2541	216.0	1.23	839	19.8	209.1	1.19	768	20.7	200.0	1.14	714	21.3	188.2	1.07
170	180	823	20.8	20.0	16.1	17.1	17.6	2.75	5.9	10.0	0.37	6.27	27.9	84	3.49	0.204	0.198	6.1	0.31	2707	2306	159	52	C	F	0.2643	217.5	1.21	813	20.1	210.7	1.17	750	21.0	202.0	1.12	700	21.6	190.7	1.06
175	185	797	21.1	20.3	16.2	17.2	17.7	2.79	6.0	10.0	0.37	6.45	27.9	83	3.54	0.206	0.200	6.1	0.31	2706	2306	158	51	C	F	0.2743	218.6	1.18	788	20.5	211.9	1.14	731	21.3	203.5	1.10	686	21.8	192.8	1.04
180	190	773	21.5	20.7	16.4	17.4	17.9	2.83	6.1	10.1	0.37	6.63	28.0	82	3.60	0.207	0.201	6.0	0.31	2705	2306	156	51	C	F	0.2842	219.7	1.15	765	20.8	213.1	1.12	713	21.6	204.9	1.08	672	22.1	194.7	1.02
SI = 10 m Initial Density = 4000 stems/ha																																								
5	15	3980	1.2	1.1	1.9	2.2	2.3	0.69	1.5	0.3	0.81	0.37	0.5	188	1.59	0.717	0.696	0.4	0.01	519	2919	28	15	A	F	0.0001	0.4	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	3932	2.4	2.2	2.8	3.2	3.3	0.76	1.9	0.7	0.72	0.46	1.8	134	1.59	0.500	0.484	1.1	0.02	697	2919	50	18	A	F	0.0006	2.5	0.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	3859	3.4	3.2	3.6	4.2	4.3	0.85	2.3	1.2	0.65	0.58	3.5	122	1.61	0.388	0.374	1.9	0.04	899	2919	73	22	A	F	0.0017	6.7	0.26	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	3762	4.3	4.1	4.4	5.1	5.3	0.94	2.6	1.7	0.59	0.71	5.6	117	1.63	0.321	0.309	2.7	0.06	1112	2919	94	27	A	F	0.0035	13.2	0.43	24	8.5	0.3	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	3646	5.2	4.9	5.2	6.0	6.2	1.02	2.8	2.3	0.54	0.85	7.8	115	1.66	0.278	0.267	3.4	0.08	1327	2919	114	31	B	F	0.0060	21.8	0.61	230	8.5	3.2	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	40	3515	6.0	5.7	6.0	6.8	7.1	1.10	3.0	2.9	0.50	0.99	10.0	113	1.69	0.248	0.238	4.1	0.11	1534	2919	131	35	B	F	0.0092	32.2	0.80	636	8.7	10.4	0.26	3	12.6	0.1	0.00	0	0.0	0.0	0.00
35	45	3373	6.8	6.4	6.7	7.6	7.9	1.18	3.2	3.4	0.47	1.15	12.2	112	1.72	0.228	0.218	4.7	0.14	1729	2919	146	39	B	F	0.0130	44.0	0.97	1074	9.0	21.3	0.47	22	12.9	1.1	0.02	2	14.2	0.1	0.00
40	50	3224	7.5	7.1	7.3	8.3	8.6	1.26	3.3	4.0	0.45	1.31	14.2	111	1.76	0.213	0.204	5.2	0.16	1908	2919	159	42	B	F	0.0176	56.6	1.12	1435	9.3	34.3	0.68	74	13.0	4.1	0.08	10	14.6	0.6	0.01
45	55	3072	8.2	7.7	7.9	9.0	9.3	1.34	3.5	4.5	0.43	1.47	16.2	110	1.80	0.201	0.193	5.7	0.18	2070	2919	170	45	B	F	0.0227	69.7	1.26	1693	9.7	48.3	0.87	168	13.2	10.1	0.18	34	14.8	2.3	0.04
50	60	2919	8.8	8.4	8.5	9.6	10.0	1.41	3.6	5.0	0.41	1.64	17.9	109	1.85	0.193	0.185	6.0	0.21	2214	2919	179	48	B	F	0.0284	82.9	1.37	1858	10.1	62.7	1.04	294	13.4	19.4	0.32	80	15.0	5.8	0.10
55	65	2769	9.5	9.0	9.1	10.2	10.6	1.48	3.7	5.4	0.40	1.81	19.5	108	1.90	0.187	0.179	6.3	0.23	2340	2919	186	50	C	F	0.0346	95.9	1.46	1950	10.5	76.9	1.17	437	13.7	31.3	0.48	151	15.2	11.9	0.18
60	70	2623	10.1	9.6	9.6	10.7	11.2	1.55	3.8	5.8	0.39	1.99	21.0	107	1.95	0.182	0.175	6.6	0.24	2448	2919	192	52	C	F	0.0414	108.5	1.54	1987	10.9	90.7	1.29	580	13.9	45.1	0.64	239	15.4	20.4	0.29
65	75	2482	10.7	10.1	10.1	11.2	11.7	1.61	3.9	6.2	0.38	2.16	22.3	106	2.01	0.179	0.172	6.8	0.26	2541	2919	196	54	C	F	0.0485	120.4	1.59	1985	11.3	103.8	1.38	712	14.2	59.8	0.79	338	15.6	30.9	0.41
70	80	2348	11.3	10.7	10.5	11.7	12.2	1.68	4.0	6.6	0.37	2.34	23.4	105	2.06	0.177	0.169	7.0	0.27	2619	2919	198	55	C	F	0.0561	131.8	1.64	1957	11.7	116.2	1.44	825	14.4	74.6	0.93	437	15.8	42.9	0.53
75	85	2220	11.8	11.2	11.0	12.1	12.6	1.74	4.1	6.9	0.37	2.52	24.4	104	2.12	0.175	0.168	7.1	0.28	2685	2919	200	56	C	F	0.0641	142.3	1.66	1910	12.2	127.7	1.49	916	14.7	89.0	1.04	532	16.0	55.7	0.65
80	90	2100	12.4	11.8	11.4	12.5	13.1	1.80	4.2	7.2	0.36	2.70	25.2	103	2.18	0.174	0.167	7.2	0.29	2739	2919	201	57	C	F	0.0724	152.1	1.68	1852	12.6	138.3	1.53	987	15.0	102.8	1.14	616	16.2	68.8	0.76
85	95	1988	12.9	12.3	11.7	12.9	13.5	1.86	4.3	7.5	0.36	2.88	25.9	102	2.24	0.174	0.167	7.2	0.30	2782	2919	201	57	C	F	0.0810	161.1	1.69	1788	13.0	148.1	1.55	1039	15.3	115.7	1.21	689	16.5	81.9	0.86
90	100	1882	13.4	12.8	12.1	13.3	13.8	1.92	4.4	7.8	0.36	3.07	26.6	101	2.31	0.173	0.167	7.3	0.31	2817	2919	201	58	C	F	0.0900	169.3	1.68	1720	13.5	156.9	1.56	1073	15.6	127.4	1.27	748	16.7	94.4	0.94
95	105	1784	13.9	13.3	12.4	13.6	14.2	1.98	4.5	8.0	0.35	3.25	27.1	99	2.37	0.174	0.167	7.3	0.31	2845	2919	200	58	C	F	0.0991	176.8	1.68	1652	13.9	165.0	1.56	1093	15.9	138.2	1.31	796	17.0	106.3	1.01
100	110	1692	14.4	13.8	12.8	13.9	14.5	2.03	4.6	8.3	0.35	3.44	27.5	98	2.43	0.174	0.168	7.3	0.32	2866	2919	199	58	C	F	0.1085	183.5	1.66	1583	14.3	172.3	1.56	1101	16.2	147.9	1.34	831	17.3	117.4	1.06
105	115	1607	14.9	14.2	13.1	14.2	14.8	2.09	4.7	8.5	0.35	3.62	27.9	97	2.49	0.175	0.168	7.2	0.32	2882	2919	197	58	C	F	0.1180	189.7	1.64	1517	14.7	178.9	1.55	1100	16.5	156.6	1.36	856	17.5	127.7	1.11
110	120	1528	15.3	14.7	13.3	14.5	15.1	2.14	4.8	8.7	0.35	3.80	28.2	96	2.56	0.176	0.169	7.2	0.33	2893	2919	196	58	C	F	0.1277	195.2	1.62	1453	15.1	184.9	1.53	1092	16.8	164.4	1.36	873	17.8	137.1	1.14
115	125	1454	15.8	15.1	13.6	14.8	15.4	2.19	4.9	8.8	0.35	3.99	28.5	95	2.62	0.177	0.171	7.2	0.33	2900	2919	194	58	C	F	0.1376	200.0	1.59	1391	15.5	190.1	1.51	1078	17.1	171.3	1.37	881	18.1	145.6	1.16
120	130	1386	16.2	15.5	13.9	15.1	15.6	2.24	5.0	9.0	0.35	4.17	28.7	94	2.69	0.178	0.172	7.1	0.33	2904	2919	192	58	C	F	0.1475	204.5	1.57	1333	15.9	194.9	1.49	1061	17.4	177.6	1.36	884	18.3	153.4	1.18
125	135	1323	16.7	16.0	14.1	15.3	15.9	2.29	5.1	9.2	0.35	4.36	28.9	93	2.75	0.180	0.173	7.1	0.33	2905	2919	190	58	C	F	0.1575	208.4	1.54	1278	16.3	199.2	1.47	1041	17.8	183.1	1.35	883	18.6	160.4	1.18
130	140	1264	17.1	16.4	14.3	15.5	16.1	2.34	5.2	9.3	0.35	4.54	29.0	92	2.81	0.181	0.175	7.0	0.33	2904	2919	187	57	C	F	0.1676	211.9	1.51	1226	16.7	202.9	1.44	1018	18.1	188.0	1.34	877	18.9	166.7	1.19
135	145	1209	17.5	16.8	14.6	15.7	16.3	2.38	5.2	9.4	0.35	4.72	29.1	91	2.88	0.183	0.176	7.0	0.33	2902	2919	185	57	C	F	0.1778	214.9	1.48	1176	17.1	206.2	1.42	994	18.4	192.2	1.32	867	19.2	172.2	1.18
140	150	1158	17.9	17.2	14.8	15.9	16.5	2.43	5.3	9.5	0.35	4.91	29.2	90	2.94	0.184	0.178	6.9	0.33	2898	2919	183	57	C	F	0.1878	217.5	1.45	1130	17.5	209.1	1.39	969	18.7	196.0	1.30	856	19.4	177.3	1.18
145	155	1111	18.3	17.6	15.0	16.1	16.7	2.47	5.4	9.6	0.35	5.09	29.3	89	3.00	0.186	0.179	6.8	0.33	2893	2919	181	57	C	F	0.1980	220.0	1.41	1087	17.8	211.7	1.36	945	19.0	199.4	1.28	843	19.7	181.8	1.17
150	160	1067	18.7	18.0	15.2	16.3	16.9	2.52	5.5	9.7	0.35	5.27	29.3	89	3.06	0.188	0.181	6.8	0.33	2888	2919	179	56	C	F	0.2081	222.0	1.38	1046	18.2	214.0	1.33	920	19.3	202.3	1.26	828	20.0	185.8	1.16
155	165	1026	19.1	18.3	15.3	16.5	17.1	2.56	5.5	9.8	0.36	5.45	29.4	88	3.12	0.189	0.183	6.7	0.33	2882	2919	177	56	C	F	0.2182	223.9	1.35	1008	18.6	216.0	1.31	896	19.6	204.9	1.24	813	20.3	189.3	1.14
160	170	987	19.5	18.7	15.5	16.7	17.3	2.60	5.6	9.9	0.36	5.63	29.4	87	3.18	0.191	0.185	6.7	0.33	2875	2919	175	56	C	F	0.2282	225.2	1.32	971	18.9	217.5	1.28	871	19.9	206.9	1.21	796	20.6	192.3	1.13
165	175	952	19.8	19.1	15.7	16.8	17.4	2.64	5.7	10.0	0.36	5.81	29.4	86	3.24	0.193	0.186	6.6	0.33	2868	2919	173	55	C	F	0.2382	226.8	1.29	938	19.3	219.2	1.25	849	20.2	209.1	1.19	781	20.8	195.2	1.11
170	180	918	20.2	19.4	15.8	17.0	17.6	2.68	5.7	10.0	0.36	5.98	29.4	85	3.30	0.194	0.188	6.5	0.33	2862	2919	171	55	C	F	0.2480	227.7	1.26	905	19.6	220.3	1.22	826	20.5	210.6	1.17	764	21.1	197.5	1.09
175	185	887	20.5	19.7	16.0	17.1	17.7	2.72	5.8	10.1	0.36	6.16	29.4	84	3.36	0.196	0.190	6.5	0.33	2855	2919	169	55	C	F	0.2579	228.8	1.23	876	19.9	221.5	1.19	804	20.8	212.1	1.14	748	21.4	199.8	1.08
180	190	858	20.9	20.1	16.1	17.3	17.9	2.76	5.9	10.1	0.36	6.33	29.4	83	3.41	0.198	0.191	6.4	0.33	2848	2919	167	54	C	F	0.2676	229.6	1.21	848	20.3	222.5	1.17	783	21.1	213.4	1.12	732	21.7	201.7	1.06

Table A22. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 10 m Initial Density = 5000 stems/ha																																								
5	15	4972	1.2	1.1	1.9	2.2	2.3	0.68	1.4	0.3	0.80	0.37	0.5	199	1.42	0.642	0.623	0.5	0.01	638	3502	34	18	A	F	0.0001	0.5	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	4904	2.3	2.1	2.7	3.2	3.3	0.75	1.8	0.7	0.71	0.45	2.0	140	1.43	0.449	0.433	1.3	0.02	840	3502	59	22	A	F	0.0006	2.7	0.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	4799	3.2	3.0	3.6	4.1	4.3	0.83	2.2	1.2	0.64	0.55	3.9	126	1.44	0.348	0.335	2.2	0.04	1068	3502	85	27	A	F	0.0015	7.3	0.29	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	4662	4.1	3.9	4.4	5.1	5.3	0.91	2.5	1.7	0.57	0.67	6.2	121	1.46	0.289	0.277	3.1	0.07	1306	3502	109	31	B	F	0.0031	14.4	0.47	14	8.4	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	4498	4.9	4.6	5.1	5.9	6.2	0.99	2.7	2.3	0.53	0.80	8.6	118	1.49	0.251	0.240	3.9	0.10	1542	3502	132	36	B	F	0.0053	23.8	0.67	184	8.4	2.4	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	40	4315	5.7	5.4	5.9	6.8	7.1	1.07	2.9	2.9	0.49	0.94	11.1	116	1.52	0.225	0.215	4.6	0.12	1768	3502	151	41	B	F	0.0081	35.1	0.87	598	8.6	9.3	0.23	2	12.3	0.1	0.00	0	0.0	0.0	0.00
35	45	4118	6.5	6.1	6.6	7.5	7.9	1.15	3.0	3.4	0.46	1.08	13.5	115	1.56	0.207	0.198	5.3	0.15	1978	3502	168	45	B	F	0.0116	47.9	1.05	1096	8.8	20.4	0.45	12	12.8	0.6	0.01	0	0.0	0.0	0.00
40	50	3914	7.2	6.7	7.2	8.3	8.6	1.22	3.2	4.0	0.43	1.23	15.7	114	1.60	0.194	0.185	5.9	0.18	2169	3502	182	48	B	F	0.0157	61.5	1.22	1536	9.1	34.1	0.68	51	12.9	2.7	0.05	5	14.5	0.3	0.01
45	55	3707	7.8	7.4	7.8	8.9	9.3	1.30	3.3	4.5	0.41	1.39	17.8	112	1.64	0.184	0.176	6.4	0.21	2338	3502	194	51	C	F	0.0204	75.5	1.36	1864	9.5	49.3	0.89	131	13.1	7.7	0.14	21	14.7	1.4	0.03
50	60	3502	8.5	8.0	8.4	9.5	10.0	1.37	3.4	5.0	0.40	1.54	19.7	111	1.69	0.177	0.169	6.8	0.23	2485	3502	203	54	C	F	0.0256	89.5	1.48	2080	9.8	64.8	1.07	252	13.3	16.2	0.27	57	14.9	4.1	0.07
55	65	3302	9.1	8.6	8.9	10.1	10.6	1.44	3.5	5.4	0.39	1.71	21.4	110	1.74	0.172	0.164	7.1	0.25	2612	3502	210	56	C	F	0.0313	103.3	1.58	2204	10.2	80.3	1.23	398	13.5	27.7	0.42	118	15.0	9.1	0.14
60	70	3109	9.7	9.2	9.5	10.7	11.2	1.50	3.6	5.8	0.38	1.87	22.9	109	1.79	0.168	0.161	7.4	0.27	2719	3502	215	58	C	F	0.0375	116.5	1.65	2259	10.6	95.1	1.35	554	13.7	41.6	0.59	202	15.2	16.7	0.24
65	75	2925	10.3	9.7	9.9	11.2	11.7	1.57	3.7	6.2	0.37	2.04	24.2	108	1.85	0.166	0.158	7.6	0.28	2809	3502	219	60	C	F	0.0441	129.1	1.71	2262	11.0	109.2	1.45	703	14.0	56.9	0.75	301	15.4	26.7	0.35
70	80	2752	10.8	10.3	10.4	11.6	12.2	1.63	3.8	6.6	0.36	2.21	25.4	107	1.91	0.164	0.156	7.7	0.30	2882	3502	221	61	C	F	0.0512	140.9	1.75	2232	11.4	122.4	1.52	835	14.2	72.6	0.90	407	15.6	38.5	0.48
75	85	2589	11.4	10.8	10.8	12.1	12.6	1.69	3.9	6.9	0.36	2.38	26.3	106	1.97	0.163	0.156	7.8	0.31	2941	3502	222	62	C	F	0.0586	151.8	1.78	2179	11.8	134.6	1.57	946	14.5	88.2	1.03	511	15.8	51.6	0.60
80	90	2436	11.9	11.3	11.2	12.5	13.1	1.75	4.1	7.2	0.35	2.55	27.2	105	2.03	0.162	0.155	7.9	0.32	2988	3502	222	62	C	F	0.0664	161.8	1.79	2110	12.2	145.7	1.61	1033	14.8	103.0	1.14	607	16.0	65.2	0.72
85	95	2295	12.4	11.9	11.6	12.9	13.5	1.81	4.2	7.5	0.35	2.73	27.9	103	2.09	0.162	0.155	7.9	0.33	3025	3502	222	63	C	F	0.0746	171.1	1.79	2033	12.7	156.0	1.63	1099	15.0	117.0	1.23	692	16.3	79.0	0.83
90	100	2163	12.9	12.3	11.9	13.2	13.8	1.87	4.2	7.8	0.35	2.91	28.5	102	2.15	0.162	0.156	7.9	0.33	3052	3502	220	63	C	F	0.0829	179.4	1.79	1952	13.1	165.2	1.64	1144	15.3	129.8	1.29	763	16.5	92.3	0.92
95	105	2041	13.4	12.8	12.3	13.6	14.2	1.93	4.3	8.0	0.35	3.08	29.0	101	2.21	0.163	0.156	7.9	0.34	3072	3502	219	63	C	F	0.0916	187.0	1.77	1869	13.5	173.5	1.64	1173	15.6	141.4	1.34	821	16.7	105.1	1.00
100	110	1928	13.9	13.3	12.6	13.9	14.5	1.98	4.4	8.3	0.34	3.26	29.4	100	2.28	0.164	0.157	7.9	0.34	3085	3502	217	63	C	F	0.1005	193.8	1.75	1787	13.9	181.0	1.64	1187	15.9	151.9	1.37	866	17.0	117.1	1.06
105	115	1824	14.4	13.8	12.9	14.2	14.8	2.03	4.5	8.5	0.34	3.44	29.7	99	2.34	0.165	0.158	7.8	0.35	3093	3502	214	63	C	F	0.1096	199.9	1.73	1708	14.3	187.8	1.63	1190	16.2	161.3	1.40	899	17.2	128.2	1.11
110	120	1728	14.9	14.2	13.2	14.5	15.1	2.09	4.6	8.7	0.34	3.62	30.0	98	2.41	0.166	0.159	7.8	0.35	3096	3502	212	63	C	F	0.1189	205.4	1.70	1632	14.7	193.8	1.61	1184	16.5	169.7	1.41	921	17.5	138.3	1.15
115	125	1639	15.3	14.7	13.4	14.7	15.4	2.14	4.7	8.8	0.34	3.80	30.2	97	2.47	0.168	0.161	7.7	0.35	3096	3502	209	62	C	F	0.1282	210.2	1.68	1559	15.1	199.1	1.59	1171	16.8	177.1	1.41	935	17.8	147.6	1.18
120	130	1557	15.8	15.1	13.7	15.0	15.6	2.19	4.8	9.0	0.34	3.98	30.4	96	2.53	0.169	0.162	7.7	0.35	3093	3502	207	62	C	F	0.1378	214.5	1.64	1490	15.5	203.9	1.56	1153	17.1	183.7	1.41	941	18.0	156.0	1.20
125	135	1481	16.2	15.5	13.9	15.2	15.9	2.24	4.9	9.1	0.34	4.16	30.5	95	2.60	0.171	0.164	7.6	0.35	3087	3502	204	62	C	F	0.1474	218.3	1.61	1424	15.9	208.1	1.54	1131	17.4	189.5	1.40	942	18.3	163.5	1.21
130	140	1410	16.6	15.9	14.1	15.5	16.1	2.28	5.0	9.3	0.34	4.34	30.6	94	2.66	0.172	0.165	7.5	0.35	3079	3502	201	61	C	F	0.1571	221.5	1.58	1362	16.3	211.6	1.51	1106	17.7	194.5	1.38	937	18.6	170.1	1.21
135	145	1345	17.0	16.3	14.4	15.7	16.3	2.33	5.1	9.4	0.34	4.51	30.7	93	2.73	0.174	0.167	7.4	0.35	3071	3502	198	61	C	F	0.1668	224.4	1.54	1304	16.7	214.9	1.48	1080	18.0	198.9	1.37	928	18.8	176.1	1.21
140	150	1285	17.4	16.7	14.6	15.9	16.5	2.38	5.1	9.5	0.35	4.69	30.7	92	2.79	0.176	0.169	7.4	0.35	3061	3502	196	60	C	F	0.1767	227.0	1.51	1250	17.0	217.7	1.45	1053	18.3	202.8	1.35	917	19.1	181.5	1.21
145	155	1229	17.8	17.1	14.8	16.1	16.7	2.42	5.2	9.6	0.35	4.87	30.7	91	2.85	0.177	0.171	7.3	0.35	3050	3502	193	60	C	F	0.1864	229.1	1.47	1198	17.4	220.1	1.42	1025	18.6	206.2	1.33	903	19.4	186.2	1.20
150	160	1178	18.2	17.5	14.9	16.3	16.9	2.46	5.3	9.7	0.35	5.05	30.7	90	2.91	0.179	0.172	7.2	0.35	3038	3502	191	59	C	F	0.1962	231.1	1.44	1152	17.8	222.4	1.39	999	18.9	209.3	1.30	889	19.7	190.5	1.19
155	165	1130	18.6	17.9	15.1	16.4	17.1	2.51	5.4	9.8	0.35	5.22	30.7	89	2.97	0.181	0.174	7.1	0.35	3027	3502	188	59	C	F	0.2060	232.8	1.41	1107	18.1	224.3	1.36	971	19.2	211.8	1.28	872	19.9	194.2	1.17
160	170	1085	19.0	18.2	15.3	16.6	17.3	2.55	5.4	9.9	0.35	5.40	30.7	88	3.04	0.183	0.176	7.0	0.35	3015	3502	185	59	C	F	0.2158	234.1	1.37	1065	18.5	225.8	1.32	944	19.5	214.0	1.26	855	20.2	197.5	1.16
165	175	1043	19.3	18.6	15.5	16.8	17.4	2.59	5.5	9.9	0.35	5.57	30.7	87	3.10	0.185	0.178	7.0	0.35	3003	3502	183	58	C	F	0.2254	235.1	1.34	1025	18.8	227.0	1.29	918	19.8	215.9	1.23	837	20.5	200.3	1.14
170	180	1005	19.7	18.9	15.6	16.9	17.6	2.63	5.6	10.0	0.35	5.75	30.7	86	3.15	0.186	0.180	6.9	0.35	2992	3502	181	58	C	F	0.2351	236.3	1.31	989	19.1	228.4	1.27	893	20.1	217.6	1.21	820	20.7	202.9	1.12
175	185	968	20.1	19.3	15.8	17.1	17.7	2.67	5.7	10.1	0.35	5.92	30.6	85	3.21	0.188	0.181	6.8	0.34	2980	3502	178	57	C	F	0.2447	236.9	1.28	954	19.5	229.1	1.24	868	20.4	218.8	1.18	802	21.0	205.0	1.11
180	190	935	20.4	19.6	15.9	17.2	17.9	2.71	5.7	10.1	0.36	6.09	30.6	84	3.27	0.190	0.183	6.8	0.34	2969	3502	176	57	C	F	0.2542	237.7	1.25	923	19.8	230.1	1.21	845	20.7	220.2	1.16	785	21.3	207.1	1.09
SI = 10 m Initial Density = 6000 stems/ha																																								
5	15	5963	1.1	1.0	1.9	2.2	2.3	0.68	1.4	0.4	0.79	0.37	0.6	209	1.29	0.587	0.569	0.5	0.01	755	4061	39	22	A	F	0.0001	0.5	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	5873	2.2	2.0	2.7	3.2	3.3	0.75	1.8	0.7	0.70	0.44	2.1	145	1.30	0.411	0.396	1.5	0.02	980	4061	68	26	A	F	0.0005	2.9	0.14	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	5734	3.1	2.9	3.5	4.1	4.3	0.82	2.1	1.2	0.62	0.54	4.3	130	1.32	0.319	0.307	2.4	0.05	1230	4061	97	31	B	F	0.0014	7.8	0.31	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	5553	3.9	3.7	4.3	5.1	5.3	0.90	2.4	1.8	0.56	0.65	6.8	124	1.34	0.265	0.254	3.4	0.07	1490	4061	124	36	B	F	0.0028	15.4	0.51	8	8.4	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	5339	4.7	4.4	5.1	5.9	6.2	0.97	2.6	2.3	0.51	0.77	9.4	121	1.37	0.231	0.220	4.3	0.11	1745	4061	148	41	B	F	0.0048	25.5	0.72	145	8.4	1.8	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	40	5100	5.5	5.2	5.8	6.8	7.1	1.05	2.7	2.9	0.48	0.90	12.1	119	1.40	0.207	0.198	5.2	0.14	1986	4061	170	46	B	F	0.0074	37.6	0.93	549	8.5	8.2	0.20	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	45	4845	6.2	5.8	6.5	7.5	7.9	1.12	2.9	3.5	0.45	1.03	14.6	117	1.44	0.191	0.182	5.9	0.17	2208	4061	188	50	B	F	0.0105	51.1	1.12	1090	8.7	19.2	0.42	7	12.7	0.3	0.01	0	0.0	0.0	0.00
40	50	4583	6.9	6.5	7.1	8.2	8.6	1.20	3.0	4.0	0.42	1.17	17.0	116	1.48	0.179	0.171	6.5	0.20	2407	4061	203	54	C	F	0.0143	65.5	1.30	1598	9.0	33.5	0.66	35	12.9	1.9	0.04	3	14.3	0.2	0.00
45	55	4320	7.5	7.1	7.7	8.9	9.3	1.27	3.1	4.5	0.40	1.32	19.3	115	1.52	0.171	0.163	7.0	0.22	2580	4061	215	57	C	F	0.0186	80.3	1.45	1992	9.3	49.5	0.89	102	13.0	5.9	0.11	13	14.6	0.8	0.01
50	60	4061	8.2	7.7	8.3	9.5	10.0	1.33	3.3	5.0	0.39	1.47	21.2	113	1.57	0.165	0.157	7.4	0.25	2730	4061	224	60	C	F	0.0234	95.1	1.57	2260	9.6	66.1	1.09	212	13.2	13.3	0.22	41	14.8	2.9	0.05
55	65	3811	8.8	8.3	8.8	10.1	10.6	1.40	3.4	5.4	0.38	1.62	23.0	112	1.62	0.160	0.153	7.8	0.27	2856	4061	231	62	C	F	0.0287	109.5	1.67	2420	10.0	82.5	1.26	358	13.4	24.3	0.37	93	14.9	7.0	0.11
60	70	3572	9.4	8.9	9.3	10.6	11.2	1.47	3.5	5.8	0.37	1.78	24.6	111	1.67	0.157	0.150	8.0	0.29	2961	4061	236	64	C	F	0.0345	123.3	1.75	2495	10.4	98.3	1.39	520	13.6	38.0	0.54	169	15.1	13.7	0.19
65	75	3346	9.9	9.4	9.8	11.1	11.7	1.53	3.6	6.2	0.36	1.94	25.9	110	1.73	0.155	0.148	8.2	0.31	3046	4061	239	65	C	F	0.0407	136.3	1.81	2508	10.8	113.2	1.50	681	13.8	53.5	0.71	266	15.3	23.0	0.30
70	80	3134	10.5	10.0	10.2	11.6	12.2	1.59	3.7	6.6	0.35	2.10	27.1	108	1.79	0.154	0.147	8.4	0.32	3114	4061	241	66	C	F	0.0474	148.5	1.84	2478	11.2	127.1	1.58	830	14.1	69.9	0.87	373	15.5	34.4	0.43
75	85	2936	11.0	10.5	10.7	12.0	12.6	1.65	3.8	6.9	0.35	2.27	28.0	107	1.85	0.153	0.146	8.4	0.33	3167	4061	241	67	C	F	0.0544	159.7	1.87	2420	11.6	139.9	1.64	957	14.3	86.3	1.01	484	15.7	47.5	0.56
80	90	2752	11.6	11.0	11.1	12.4	13.1	1.71	3.9	7.2	0.34	2.44	28.9	106	1.91	0.153	0.146	8.5	0.34	3208	4061	241	67	C	F	0.0618	170.0	1.88	2342	12.0	151.6	1.68	1060	14.6	102.1	1.13	588	15.9	61.3	0.68
85	95	2582	12.1	11.5	11.4	12.8	13.5	1.77	4.0	7.5	0.34	2.60	29.6	105	1.97	0.153	0.146	8.5	0.35	3237	4061	239	67	C	F	0.0694	179.3	1.88	2255	12.4	162.2	1.70	1139	14.8	116.9	1.22	683	16.1	75.5	0.79
90	100	2426	12.6	12.0	11.8	13.2	13.8	1.83	4.1	7.8	0.34	2.78	30.1	104	2.03	0.154	0.147	8.5	0.36	3257	4061	238	67	C	F	0.0775	187.9	1.87	2163	12.8	171.8	1.71	1197	15.1	130.7	1.30	765	16.3	89.5	0.89
95	105	2281	13.1	12.5	12.1	13.5	14.2	1.88	4.2	8.0	0.34	2.95	30.6	103	2.09	0.155	0.148	8.5	0.36	3270	4061	235	67	C	F	0.0857	195.4	1.85	2068	13.2	180.4	1.71	1234	15.4	143.2	1.36	833	16.5	103.0	0.98
100	110	2148	13.5	12.9	12.4	13.8	14.5	1.94	4.3	8.2	0.34	3.12	31.0	101	2.16	0.156	0.149	8.4	0.36	3276	4061	233	67	C	F	0.0942	202.3	1.83	1974	13.6	188.0	1.70	1255	15.7	154.4	1.40	886	16.8	115.6	1.05
105	115	2026	14.0	13.4	12.7	14.1	14.8	1.99	4.4	8.4	0.34	3.29	31.3	100	2.22	0.157	0.150	8.4	0.37	3277	4061	230	67	C	F	0.1029	208.4	1.80	1883	14.0	194.9	1.69	1263	16.0	164.5	1.42	927	17.0	127.5	1.10
110	120	1914	14.5	13.8	13.0	14.4	15.1	2.04	4.5	8.6	0.34	3.47	31.5	99	2.29	0.158	0.151	8.3	0.37	3274	4061	227	66	C	F	0.1117	213.8	1.77	1796	14.4	201.1	1.67	1260	16.2	173.4	1.44	956	17.3	138.4	1.15
115	125	1810	14.9	14.3	13.2	14.7	15.4	2.09	4.6	8.8	0.34	3.64	31.7	98	2.35	0.160	0.153	8.2	0.37	3267	4061	223	66	C	F	0.1207	218.5	1.74	1711	14.8	206.4	1.64	1248	16.5	181.2	1.44	975	17.5	148.2	1.18
120	130	1715	15.4	14.7	13.5	14.9	15.6	2.14	4.7	9.0	0.34	3.82	31.8	97	2.41	0.162	0.155	8.1	0.37	3257	4061	220	65	C	F	0.1299	222.8	1.71	1632	15.2	211.1	1.62	1231	16.8	188.2	1.44	985	17.8	157.2	1.20
125	135	1627	15.8	15.1	13.7	15.2	15.9	2.19	4.7	9.1	0.34	3.99	31.9	96	2.48	0.163	0.156	8.0	0.37	3245	4061	217	65	C	F	0.1392	226.4	1.67	1557	15.5	215.3	1.59	1209	17.1	194.3	1.43	988	18.1	165.1	1.22
130	140	1547	16.2	15.5	14.0	15.4	16.1	2.24	4.8	9.3	0.34	4.17	32.0	95	2.54	0.165	0.158	7.9	0.37	3232	4061	214	64	C	F	0.1485	229.7	1.63	1488	15.9	219.0	1.56	1184	17.4	199.7	1.42	986	18.3	172.4	1.23
135	145	1472	16.6	15.9	14.2	15.6	16.3	2.29	4.9	9.4	0.34	4.34	32.0	94	2.61	0.167	0.160	7.8	0.37	3217	4061	210	64	C	F	0.1579	232.5	1.60	1422	16.3	222.1	1.53	1156	17.7	204.2	1.40	979	18.6	178.8	1.23
140	150	1403	17.0	16.3	14.4	15.8	16.5	2.33	5.0	9.5	0.34	4.51	32.0	93	2.67	0.169	0.162	7.7	0.37	3202	4061	207	63	C	F	0.1674	234.8	1.56	1360	16.7	224.9	1.49	1127	18.0	208.3	1.38	969	18.8	184.5	1.23
145	155	1340	17.4	16.7	14.6	16.0	16.7	2.38	5.1	9.6	0.34	4.69	32.0	92	2.73	0.171	0.163	7.7	0.37	3186	4061	204	63	C	F	0.1769	237.0	1.52	1303	17.0	227.4	1.46	1098	18.3	211.9	1.36	956	19.1	189.6	1.22
150	160	1281	17.8	17.1	14.8	16.2	16.9	2.42	5.2	9.7	0.34	4.86	32.0	91	2.79	0.172	0.165	7.6	0.37	3170	4061	201	62	C	F	0.1864	238.8	1.49	1249	17.4	229.4	1.43	1068	18.6	214.9	1.34	940	19.4	194.0	1.21
155	165	1226	18.2	17.5	14.9	16.4	17.1	2.46	5.2	9.8	0.34	5.03	31.9	90	2.86	0.174	0.167	7.5	0.37	3154	4061	198	62	C	F	0.1959	240.2	1.45	1198	17.7	231.1	1.40	1038	18.9	217.4	1.31	923	19.6	197.8	1.20
160	170	1176	18.6	17.8	15.1	16.5	17.3	2.50	5.3	9.9	0.34	5.21	31.9	89	2.92	0.176	0.169	7.4	0.36	3137	4061	195	61	C	F	0.2054	241.5	1.42	1152	18.1	232.7	1.36	1010	19.2	219.8	1.29	906	19.9	201.4	1.18
165	175	1128	18.9	18.2	15.3	16.7	17.4	2.54	5.4	9.9	0.35	5.38	31.8	88	2.98	0.178	0.171	7.3	0.36	3121	4061	192	61	C	F	0.2148	242.3	1.38	1107	18.4	233.7	1.33	980	19.5	221.5	1.26	887	20.2	204.2	1.16
170	180	1085	19.3	18.5	15.4	16.9	17.6	2.58	5.4	10.0	0.35	5.55	31.7	87	3.04	0.180	0.173	7.2	0.36	3106	4061	190	60	C	F	0.2242	243.3	1.35	1066	18.8	234.9	1.30	953	19.8	223.2	1.24	869	20.4	207.0	1.15
175	185	1044	19.7	18.9	15.6	17.0	17.7	2.62	5.5	10.0	0.35	5.72	31.7	86	3.09	0.182	0.175	7.1	0.36	3090	4061	187	60	C	F	0.2336	243.9	1.31	1027	19.1	235.7	1.27	926	20.1	224.5	1.21	849	20.7	209.2	1.13
180	190	1006	20.0	19.2	15.7	17.1	17.9	2.66	5.6	10.1	0.35	5.89	31.6	85	3.15	0.184	0.177	7.1	0.36	3076	4061	185	59	C	F	0.2428	244.3	1.28	991	19.4	236.3	1.24	900	20.4	225.6	1.18	831	21.0	211.2	1.11

Table A23. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 10 m Initial Density = 7000 stems/ha																																								
5	15	6953	1.0	1.0	1.9	2.2	2.3	0.68	1.3	0.4	0.78	0.36	0.6	218	1.20	0.545	0.527	0.6	0.01	870	4603	44	25	A	F	0.0001	0.5	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	6840	2.1	1.9	2.7	3.2	3.3	0.74	1.7	0.8	0.69	0.43	2.3	149	1.21	0.381	0.367	1.6	0.03	1116	4603	76	30	A	F	0.0005	3.1	0.15	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	6665	3.0	2.8	3.5	4.1	4.3	0.81	2.0	1.2	0.61	0.52	4.6	133	1.22	0.297	0.284	2.7	0.05	1387	4603	108	35	B	F	0.0012	8.3	0.33	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	6438	3.8	3.6	4.3	5.0	5.3	0.88	2.3	1.8	0.55	0.63	7.3	127	1.25	0.247	0.236	3.7	0.08	1666	4603	137	40	B	F	0.0025	16.3	0.53	5	8.3	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	6170	4.6	4.3	5.0	5.9	6.2	0.96	2.5	2.4	0.50	0.74	10.1	123	1.27	0.215	0.205	4.7	0.11	1937	4603	164	46	B	F	0.0044	27.0	0.76	114	8.3	1.4	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	40	5873	5.3	5.0	5.7	6.7	7.1	1.03	2.6	2.9	0.46	0.86	13.0	121	1.30	0.194	0.184	5.6	0.15	2192	4603	187	51	C	F	0.0068	39.8	0.98	497	8.4	7.1	0.18	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	45	5559	6.0	5.6	6.4	7.5	7.9	1.10	2.8	3.5	0.44	0.99	15.7	119	1.34	0.179	0.170	6.4	0.18	2423	4603	207	55	C	F	0.0097	54.0	1.19	1065	8.6	18.0	0.40	4	12.6	0.2	0.00	0	0.0	0.0	0.00
40	50	5237	6.7	6.3	7.0	8.2	8.6	1.17	2.9	4.0	0.41	1.12	18.2	118	1.38	0.168	0.160	7.1	0.21	2628	4603	222	59	C	F	0.0132	69.1	1.37	1630	8.9	32.6	0.65	24	12.8	1.3	0.03	2	14.1	0.1	0.00
45	55	4916	7.3	6.9	7.6	8.9	9.3	1.24	3.0	4.5	0.39	1.26	20.5	116	1.43	0.161	0.153	7.6	0.24	2805	4603	235	62	C	F	0.0172	84.6	1.52	2087	9.1	49.3	0.89	79	12.9	4.5	0.08	9	14.5	0.6	0.01
50	60	4603	7.9	7.5	8.2	9.5	10.0	1.31	3.1	5.0	0.38	1.41	22.6	115	1.47	0.155	0.147	8.0	0.27	2954	4603	244	65	C	F	0.0217	99.9	1.65	2407	9.5	66.7	1.10	178	13.1	11.0	0.18	29	14.7	2.0	0.03
55	65	4302	8.5	8.0	8.7	10.1	10.6	1.37	3.2	5.4	0.37	1.55	24.4	114	1.52	0.151	0.144	8.4	0.29	3079	4603	251	67	C	F	0.0267	114.8	1.75	2603	9.8	84.0	1.28	318	13.3	21.2	0.32	72	14.9	5.3	0.08
60	70	4016	9.1	8.6	9.2	10.6	11.2	1.44	3.4	5.8	0.36	1.71	26.0	112	1.58	0.149	0.141	8.6	0.31	3180	4603	255	69	C	F	0.0321	129.0	1.83	2701	10.2	100.6	1.43	482	13.5	34.5	0.49	141	15.0	11.2	0.16
65	75	3748	9.6	9.2	9.7	11.1	11.7	1.50	3.5	6.2	0.35	1.86	27.4	111	1.63	0.147	0.140	8.8	0.33	3261	4603	258	70	C	F	0.0380	142.5	1.89	2726	10.5	116.3	1.54	652	13.7	50.1	0.66	233	15.2	19.7	0.26
70	80	3498	10.2	9.7	10.1	11.6	12.2	1.56	3.6	6.5	0.35	2.02	28.6	110	1.69	0.146	0.139	8.9	0.34	3324	4603	259	71	D	F	0.0443	154.9	1.92	2699	10.9	130.8	1.63	813	13.9	66.8	0.83	340	15.3	30.6	0.38
75	85	3266	10.7	10.2	10.5	12.0	12.6	1.62	3.7	6.9	0.34	2.18	29.5	109	1.75	0.146	0.138	9.0	0.35	3371	4603	259	71	D	F	0.0509	166.4	1.95	2638	11.3	144.2	1.69	955	14.2	83.8	0.98	453	15.5	43.4	0.51
80	90	3052	11.3	10.7	10.9	12.4	13.1	1.68	3.8	7.2	0.34	2.34	30.3	107	1.81	0.146	0.139	9.0	0.36	3405	4603	258	71	D	F	0.0580	176.9	1.95	2555	11.7	156.3	1.73	1073	14.4	100.4	1.11	565	15.7	57.4	0.63
85	95	2855	11.8	11.2	11.3	12.8	13.5	1.74	3.9	7.5	0.34	2.50	31.0	106	1.87	0.146	0.139	9.0	0.37	3428	4603	256	71	D	F	0.0653	186.4	1.95	2459	12.1	167.3	1.75	1166	14.7	116.1	1.22	668	15.9	71.8	0.75
90	100	2675	12.3	11.7	11.6	13.1	13.8	1.79	4.0	7.7	0.33	2.67	31.6	105	1.93	0.147	0.140	9.0	0.38	3441	4603	253	71	D	F	0.0729	195.0	1.94	2357	12.5	177.2	1.76	1235	14.9	130.7	1.30	759	16.2	86.3	0.86
95	105	2509	12.7	12.2	12.0	13.5	14.2	1.85	4.1	8.0	0.33	2.83	32.0	104	2.00	0.148	0.141	9.0	0.38	3447	4603	250	71	D	F	0.0808	202.7	1.92	2252	12.9	186.1	1.76	1281	15.2	143.9	1.36	835	16.4	100.3	0.95
100	110	2357	13.2	12.6	12.3	13.8	14.5	1.90	4.2	8.2	0.33	3.00	32.4	103	2.06	0.149	0.142	8.9	0.38	3447	4603	247	71	D	F	0.0889	209.6	1.90	2147	13.3	194.0	1.76	1310	15.5	155.9	1.41	898	16.6	113.7	1.03
105	115	2217	13.7	13.1	12.6	14.1	14.8	1.95	4.3	8.4	0.33	3.17	32.6	102	2.12	0.151	0.143	8.8	0.39	3442	4603	243	70	D	F	0.0972	215.6	1.87	2045	13.7	200.9	1.74	1323	15.7	166.5	1.44	946	16.9	126.1	1.09
110	120	2089	14.1	13.5	12.8	14.4	15.1	2.00	4.4	8.6	0.33	3.34	32.8	100	2.19	0.152	0.145	8.7	0.39	3432	4603	240	70	C	F	0.1058	221.0	1.83	1947	14.1	207.1	1.72	1323	16.0	175.9	1.46	981	17.1	137.6	1.14
115	125	1972	14.6	13.9	13.1	14.6	15.4	2.06	4.4	8.8	0.33	3.51	33.0	99	2.25	0.154	0.147	8.6	0.39	3419	4603	236	69	C	F	0.1145	225.7	1.80	1854	14.5	212.5	1.69	1315	16.3	184.3	1.47	1005	17.3	148.0	1.18
120	130	1865	15.0	14.4	13.3	14.9	15.6	2.10	4.5	9.0	0.33	3.68	33.1	98	2.32	0.155	0.148	8.5	0.39	3404	4603	232	69	C	F	0.1233	229.9	1.76	1766	14.9	217.4	1.67	1299	16.6	191.6	1.47	1020	17.6	157.5	1.21
125	135	1766	15.5	14.8	13.6	15.1	15.9	2.15	4.6	9.1	0.33	3.85	33.1	97	2.38	0.157	0.150	8.4	0.39	3387	4603	228	68	C	F	0.1322	233.5	1.72	1683	15.2	221.5	1.63	1277	16.9	198.0	1.46	1027	17.8	166.1	1.23
130	140	1675	15.9	15.2	13.8	15.4	16.1	2.20	4.7	9.2	0.33	4.02	33.1	96	2.44	0.159	0.152	8.3	0.39	3368	4603	225	67	C	F	0.1413	236.6	1.68	1605	15.6	225.1	1.60	1251	17.2	203.6	1.45	1027	18.1	173.7	1.24
135	145	1592	16.3	15.6	14.0	15.6	16.3	2.25	4.8	9.4	0.33	4.19	33.2	95	2.51	0.161	0.154	8.2	0.39	3349	4603	221	67	C	F	0.1504	239.4	1.65	1532	16.0	228.4	1.57	1224	17.5	208.5	1.43	1022	18.4	180.5	1.24
140	150	1515	16.7	16.0	14.2	15.8	16.5	2.29	4.9	9.5	0.33	4.36	33.1	94	2.57	0.163	0.155	8.1	0.38	3329	4603	217	66	C	F	0.1595	241.7	1.61	1464	16.3	231.1	1.54	1194	17.8	212.8	1.41	1013	18.6	186.5	1.24
145	155	1444	17.1	16.4	14.4	16.0	16.7	2.34	5.0	9.6	0.34	4.53	33.1	93	2.63	0.165	0.157	8.0	0.38	3308	4603	214	65	C	F	0.1688	243.7	1.57	1400	16.7	233.4	1.50	1163	18.1	216.4	1.39	1001	18.9	191.9	1.23
150	160	1378	17.5	16.7	14.6	16.1	16.9	2.38	5.0	9.7	0.34	4.70	33.0	92	2.69	0.167	0.159	7.9	0.38	3288	4603	210	65	C	F	0.1780	245.3	1.53	1340	17.1	235.4	1.47	1131	18.3	219.5	1.37	985	19.1	196.5	1.22
155	165	1317	17.8	17.1	14.8	16.3	17.1	2.42	5.1	9.8	0.34	4.87	32.9	91	2.76	0.169	0.161	7.8	0.38	3267	4603	207	64	C	F	0.1872	246.6	1.49	1284	17.4	237.0	1.43	1099	18.6	222.1	1.34	968	19.4	200.6	1.21
160	170	1261	18.2	17.5	14.9	16.5	17.3	2.46	5.2	9.8	0.34	5.04	32.9	90	2.82	0.171	0.163	7.7	0.38	3247	4603	204	64	C	F	0.1965	247.8	1.45	1232	17.8	238.4	1.40	1068	18.9	224.4	1.32	950	19.7	204.2	1.20
165	175	1209	18.6	17.8	15.1	16.6	17.4	2.50	5.3	9.9	0.34	5.21	32.8	89	2.88	0.173	0.165	7.6	0.37	3227	4603	201	63	C	F	0.2057	248.7	1.42	1184	18.1	239.6	1.37	1038	19.2	226.3	1.29	931	19.9	207.4	1.18
170	180	1160	18.9	18.2	15.3	16.8	17.6	2.54	5.3	10.0	0.34	5.38	32.7	88	2.94	0.175	0.167	7.5	0.37	3208	4603	198	62	C	F	0.2149	249.3	1.38	1138	18.4	240.4	1.33	1008	19.5	227.8	1.26	912	20.2	210.1	1.16
175	185	1115	19.3	18.5	15.4	16.9	17.7	2.58	5.4	10.0	0.34	5.54	32.6	87	2.99	0.177	0.169	7.4	0.37	3189	4603	195	62	C	F	0.2240	249.8	1.35	1096	18.7	241.2	1.30	979	19.8	229.2	1.24	892	20.4	212.5	1.15
180	190	1073	19.6	18.9	15.5	17.1	17.9	2.62	5.5	10.1	0.35	5.71	32.5	86	3.05	0.179	0.171	7.3	0.37	3171	4603	192	61	C	F	0.2331	250.1	1.31	1056	19.1	241.7	1.27	951	20.1	230.2	1.21	872	20.7	214.5	1.13
SI = 10 m Initial Density = 7500 stems/ha																																								
5	15	7448	1.0	0.9	1.9	2.2	2.3	0.68	1.3	0.4	0.77	0.36	0.6	222	1.16	0.527	0.509	0.6	0.01	928	4868	46	27	A	F	0.0001	0.5	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	7323	2.0	1.9	2.7	3.2	3.3	0.74	1.7	0.8	0.68	0.43	2.4	151	1.17	0.369	0.354	1.7	0.03	1183	4868	80	31	B	F	0.0004	3.1	0.15	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	7129	2.9	2.7	3.5	4.1	4.3	0.81	2.0	1.2	0.61	0.52	4.8	134	1.18	0.287	0.275	2.8	0.05	1464	4868	113	37	B	F	0.0012	8.5	0.33	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	6878	3.7	3.5	4.2	5.0	5.3	0.88	2.2	1.8	0.54	0.62	7.5	128	1.21	0.239	0.228	3.9	0.08	1751	4868	144	42	B	F	0.0024	16.8	0.55	4	8.2	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	6583	4.5	4.2	5.0	5.9	6.2	0.95	2.4	2.4	0.50	0.73	10.5	124	1.23	0.209	0.199	4.9	0.12	2030	4868	172	48	B	F	0.0042	27.7	0.78	100	8.3	1.2	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	40	6256	5.2	4.9	5.7	6.7	7.1	1.02	2.6	2.9	0.46	0.85	13.4	122	1.26	0.188	0.179	5.9	0.15	2291	4868	195	53	C	F	0.0065	40.8	1.01	470	8.4	6.6	0.16	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	45	5910	5.9	5.6	6.4	7.5	7.9	1.09	2.7	3.5	0.43	0.97	16.2	120	1.30	0.174	0.165	6.7	0.19	2526	4868	215	57	C	F	0.0094	55.3	1.22	1047	8.6	17.4	0.38	3	12.6	0.1	0.00	0	0.0	0.0	0.00
40	50	5558	6.6	6.2	7.0	8.2	8.6	1.16	2.8	4.0	0.41	1.10	18.8	119	1.34	0.164	0.155	7.3	0.22	2733	4868	231	61	C	F	0.0127	70.7	1.40	1638	8.8	32.1	0.64	20	12.8	1.0	0.02	0	0.0	0.0	0.00
45	55	5208	7.2	6.8	7.6	8.9	9.3	1.23	3.0	4.5	0.39	1.24	21.1	117	1.39	0.156	0.148	7.9	0.25	2911	4868	244	65	C	F	0.0166	86.5	1.56	2124	9.1	49.0	0.88	69	12.9	3.9	0.07	7	14.5	0.4	0.01
50	60	4868	7.8	7.4	8.2	9.5	10.0	1.29	3.1	4.9	0.38	1.38	23.2	116	1.43	0.151	0.143	8.3	0.28	3061	4868	253	67	C	F	0.0210	102.1	1.69	2470	9.4	66.8	1.10	163	13.1	10.0	0.17	25	14.7	1.7	0.03
55	65	4542	8.4	7.9	8.7	10.1	10.6	1.36	3.2	5.4	0.36	1.53	25.1	115	1.48	0.148	0.140	8.7	0.30	3184	4868	260	69	C	F	0.0258	117.2	1.79	2685	9.7	84.5	1.29	299	13.3	19.8	0.30	64	14.8	4.7	0.07
60	70	4233	9.0	8.5	9.2	10.6	11.2	1.42	3.3	5.8	0.36	1.67	26.7	113	1.54	0.145	0.138	8.9	0.32	3283	4868	264	71	D	F	0.0311	131.7	1.87	2795	10.1	101.5	1.44	463	13.4	32.9	0.47	129	15.0	10.2	0.14
65	75	3944	9.5	9.0	9.6	11.1	11.7	1.48	3.4	6.2	0.35	1.83	28.1	112	1.59	0.144	0.136	9.1	0.34	3362	4868	267	72	D	F	0.0368	145.2	1.92	2827	10.5	117.5	1.56	636	13.6	48.3	0.64	218	15.1	18.3	0.24
70	80	3675	10.1	9.6	10.1	11.6	12.2	1.55	3.5	6.5	0.34	1.98	29.2	111	1.65	0.143	0.135	9.2	0.35	3422	4868	268	73	D	F	0.0429	157.8	1.96	2803	10.8	132.4	1.64	803	13.9	65.2	0.81	324	15.3	28.9	0.36
75	85	3427	10.6	10.1	10.5	12.0	12.6	1.61	3.6	6.9	0.34	2.14	30.2	109	1.71	0.143	0.135	9.3	0.36	3466	4868	267	73	D	F	0.0494	169.4	1.98	2741	11.2	146.0	1.71	951	14.1	82.4	0.96	438	15.5	41.5	0.49
80	90	3198	11.1	10.6	10.9	12.4	13.1	1.66	3.7	7.2	0.34	2.30	31.0	108	1.77	0.143	0.135	9.3	0.37	3497	4868	266	73	D	F	0.0563	180.0	1.99	2656	11.6	158.4	1.75	1076	14.3	99.4	1.10	552	15.7	55.4	0.61
85	95	2988	11.6	11.1	11.2	12.8	13.5	1.72	3.8	7.5	0.33	2.46	31.7	107	1.83	0.143	0.136	9.3	0.38	3517	4868	263	73	D	F	0.0635	189.6	1.99	2556	12.0	169.6	1.78	1175	14.6	115.4	1.21	658	15.9	70.0	0.73
90	100	2795	12.1	11.5	11.6	13.1	13.8	1.78	3.9	7.7	0.33	2.62	32.2	106	1.89	0.144	0.137	9.3	0.38	3527	4868	261	73	D	F	0.0709	198.2	1.97	2449	12.4	179.6	1.79	1249	14.8	130.3	1.30	753	16.1	84.6	0.84
95	105	2619	12.6	12.0	11.9	13.5	14.2	1.83	4.0	8.0	0.33	2.78	32.7	104	1.95	0.145	0.138	9.2	0.39	3530	4868	257	73	D	F	0.0787	206.0	1.95	2339	12.8	188.6	1.79	1301	15.1	144.0	1.37	834	16.3	98.9	0.94
100	110	2457	13.1	12.5	12.2	13.8	14.5	1.88	4.1	8.2	0.33	2.95	33.0	103	2.02	0.146	0.139	9.1	0.39	3527	4868	254	72	D	F	0.0866	212.8	1.93	2229	13.2	196.5	1.78	1333	15.4	156.2	1.41	900	16.5	112.5	1.02
105	115	2309	13.5	12.9	12.5	14.1	14.8	1.94	4.2	8.4	0.33	3.12	33.2	102	2.08	0.148	0.141	9.0	0.39	3518	4868	250	72	D	F	0.0948	218.9	1.90	2122	13.6	203.5	1.76	1349	15.7	167.2	1.45	952	16.8	125.2	1.08
110	120	2174	14.0	13.4	12.8	14.4	15.1	1.99	4.3	8.6	0.33	3.28	33.4	101	2.14	0.149	0.142	8.9	0.40	3506	4868	246	71	D	F	0.1032	224.3	1.86	2020	14.0	209.8	1.74	1352	15.9	176.9	1.47	991	17.0	137.0	1.14
115	125	2050	14.4	13.8	13.0	14.6	15.4	2.04	4.4	8.8	0.33	3.45	33.6	100	2.21	0.151	0.144	8.8	0.40	3490	4868	242	71	D	F	0.1117	229.0	1.82	1922	14.3	215.2	1.71	1344	16.2	185.4	1.48	1018	17.3	147.7	1.18
120	130	1937	14.9	14.2	13.3	14.9	15.6	2.09	4.5	8.9	0.33	3.62	33.6	99	2.27	0.153	0.145	8.7	0.40	3472	4868	238	70	D	F	0.1203	233.1	1.79	1830	14.7	220.1	1.69	1330	16.5	193.0	1.48	1035	17.5	157.5	1.21
125	135	1833	15.3	14.6	13.5	15.1	15.9	2.14	4.6	9.1	0.33	3.79	33.7	98	2.34	0.155	0.147	8.6	0.40	3453	4868	234	69	C	F	0.1291	236.7	1.75	1743	15.1	224.3	1.66	1308	16.8	199.6	1.47	1044	17.7	166.3	1.23
130	140	1737	15.7	15.0	13.7	15.3	16.1	2.18	4.7	9.2	0.33	3.96	33.7	96	2.40	0.156	0.149	8.5	0.39	3432	4868	230	69	C	F	0.1381	239.8	1.71	1661	15.5	227.9	1.62	1283	17.1	205.3	1.46	1045	18.0	174.0	1.24
135	145	1649	16.1	15.4	13.9	15.5	16.3	2.23	4.7	9.4	0.33	4.13	33.7	95	2.46	0.158	0.151	8.4	0.39	3410	4868	226	68	C	F	0.1470	242.4	1.67	1585	15.8	231.0	1.59	1254	17.4	210.2	1.44	1041	18.3	181.0	1.24
140	150	1568	16.5	15.8	14.1	15.7	16.5	2.27	4.8	9.5	0.33	4.30	33.6	94	2.53	0.160	0.153	8.3	0.39	3388	4868	222	67	C	F	0.1561	244.7	1.63	1513	16.2	233.7	1.55	1224	17.6	214.5	1.43	1032	18.5	187.2	1.24
145	155	1494	16.9	16.2	14.3	15.9	16.7	2.32	4.9	9.6	0.33	4.46	33.6	93	2.59	0.162	0.155	8.2	0.39	3365	4868	218	67	C	F	0.1651	246.7	1.59	1447	16.6	236.1	1.52	1193	17.9	218.3	1.40	1021	18.8	192.8	1.24
150	160	1425	17.3	16.6	14.5	16.1	16.9	2.36	5.0	9.7	0.33	4.63	33.5	92	2.65	0.164	0.157	8.1	0.39	3342	4868	215	66	C	F	0.1742	248.3	1.55	1384	16.9	238.1	1.48	1160	18.2	221.5	1.38	1006	19.0	197.6	1.23
155	165	1361	17.7	17.0	14.7	16.3	17.1	2.40	5.1	9.8	0.34	4.80	33.4	91	2.71	0.166	0.159	7.9	0.38	3320	4868	211	65	C	F	0.1834	249.6	1.51	1326	17.3	239.7	1.45	1128	18.5	224.1	1.35	989	19.3	201.8	1.22
160	170	1302	18.1	17.3	14.9	16.5	17.3	2.44	5.1	9.8	0.34	4.97	33.3	90	2.77	0.168	0.161	7.8	0.38	3298	4868	208	65	C	F	0.1925	250.6	1.47	1271	17.6	241.0	1.41	1096	18.8	226.4	1.33	971	19.5	205.5	1.21
165	175	1247	18.4	17.7	15.0	16.6	17.4	2.49	5.2	9.9	0.34	5.13	33.2	89	2.83	0.170	0.163	7.7	0.38	3276	4868	205	64	C	F	0.2016	251.4	1.43	1220	17.9	242.1	1.38	1064	19.1	228.3	1.30	951	19.8	208.6	1.19
170	180	1197	18.8	18.0	15.2	16.8	17.6	2.53	5.3	10.0	0.34	5.30	33.1	88	2.89	0.172	0.165	7.6	0.38	3255	4868	202	63	C	F	0.2107	252.2	1.40	1173	18.3	243.1	1.35	1034	19.4	230.0	1.27	932	20.1	211.5	1.17
175	185	1150	19.1	18.4	15.3	16.9	17.7	2.57	5.3	10.0	0.34	5.47	33.0	88	2.95	0.174	0.166	7.6	0.38	3235	4868	199	63	C	F	0.2197	252.6	1.36	1129	18.6	243.8	1.31	1005	19.6	231.4	1.25	912	20.3	214.0	1.15
180	190	1106	19.5	18.7	15.5	17.1	17.9	2.60	5.4	10.1	0.34	5.63	32.9	87	3.01	0.176	0.168	7.5	0.37	3215	4868	196	62	C	F	0.2287	252.9	1.33	1088	18.9	244.3	1.28	976	19.9	232.5	1.22	892	20.6	216.1	1.13

Table A24. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 10 m Initial Density = 8000 stems/ha																																								
5	15	7943	1.0	0.9	1.8	2.2	2.3	0.68	1.3	0.4	0.77	0.36	0.6	226	1.12	0.510	0.493	0.6	0.01	985	5130	49	29	A	F	0.0001	0.6	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	7805	2.0	1.9	2.7	3.2	3.3	0.74	1.7	0.8	0.68	0.43	2.4	153	1.13	0.357	0.343	1.7	0.03	1250	5130	83	33	B	F	0.0004	3.2	0.16	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	7593	2.9	2.7	3.4	4.1	4.3	0.80	2.0	1.3	0.60	0.51	4.9	136	1.15	0.279	0.266	2.9	0.05	1540	5130	118	39	B	F	0.0011	8.7	0.34	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	7317	3.7	3.4	4.2	5.0	5.3	0.87	2.2	1.8	0.54	0.61	7.8	129	1.17	0.232	0.221	4.0	0.09	1836	5130	150	45	B	F	0.0024	17.2	0.56	3	8.2	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	6993	4.4	4.1	5.0	5.9	6.2	0.94	2.4	2.4	0.49	0.72	10.8	125	1.20	0.202	0.193	5.1	0.12	2121	5130	179	50	C	F	0.0041	28.4	0.80	88	8.3	1.1	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	40	6636	5.1	4.8	5.7	6.7	7.1	1.01	2.5	2.9	0.46	0.83	13.8	123	1.23	0.183	0.173	6.1	0.16	2387	5130	204	55	C	F	0.0063	41.7	1.03	445	8.3	6.2	0.15	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	45	6260	5.8	5.5	6.3	7.5	7.9	1.08	2.7	3.5	0.43	0.96	16.6	121	1.26	0.169	0.160	6.9	0.19	2626	5130	224	60	C	F	0.0090	56.5	1.24	1027	8.5	16.7	0.37	3	12.4	0.1	0.00	0	0.0	0.0	0.00
40	50	5877	6.5	6.1	7.0	8.2	8.6	1.15	2.8	4.0	0.40	1.08	19.3	120	1.30	0.159	0.151	7.6	0.23	2835	5130	240	64	C	F	0.0123	72.2	1.43	1641	8.8	31.5	0.62	17	12.7	0.9	0.02	0	0.0	0.0	0.00
45	55	5498	7.1	6.7	7.6	8.9	9.3	1.22	2.9	4.5	0.39	1.22	21.7	118	1.35	0.152	0.144	8.2	0.26	3014	5130	253	67	C	F	0.0161	88.3	1.59	2155	9.0	48.7	0.88	61	12.9	3.4	0.06	6	14.4	0.4	0.01
50	60	5130	7.7	7.3	8.1	9.5	10.0	1.28	3.0	4.9	0.37	1.36	23.8	117	1.40	0.147	0.140	8.6	0.28	3163	5130	263	70	C	F	0.0203	104.1	1.72	2527	9.3	66.8	1.10	149	13.0	9.1	0.15	21	14.7	1.4	0.02
55	65	4778	8.3	7.8	8.6	10.0	10.6	1.35	3.1	5.4	0.36	1.50	25.7	115	1.45	0.144	0.136	8.9	0.31	3285	5130	269	72	D	F	0.0250	119.5	1.82	2761	9.7	84.9	1.30	281	13.2	18.4	0.28	57	14.8	4.2	0.06
60	70	4446	8.8	8.4	9.1	10.6	11.2	1.41	3.2	5.8	0.35	1.64	27.3	114	1.50	0.142	0.134	9.2	0.33	3383	5130	273	73	D	F	0.0302	134.1	1.90	2884	10.0	102.3	1.45	444	13.4	31.2	0.44	117	14.9	9.2	0.13
65	75	4137	9.4	8.9	9.6	11.1	11.7	1.47	3.3	6.2	0.35	1.79	28.7	113	1.55	0.140	0.133	9.4	0.34	3459	5130	275	74	D	F	0.0358	147.9	1.96	2923	10.4	118.7	1.57	620	13.6	46.7	0.62	203	15.1	16.9	0.22
70	80	3849	9.9	9.4	10.0	11.5	12.2	1.53	3.5	6.5	0.34	1.95	29.9	111	1.61	0.140	0.132	9.5	0.36	3516	5130	276	75	D	F	0.0417	160.6	2.00	2901	10.8	133.8	1.66	790	13.8	63.5	0.79	308	15.3	27.2	0.34
75	85	3584	10.5	10.0	10.4	12.0	12.6	1.59	3.6	6.8	0.34	2.10	30.9	110	1.67	0.140	0.132	9.5	0.37	3557	5130	275	75	D	F	0.0481	172.3	2.02	2840	11.1	147.7	1.73	945	14.0	81.0	0.95	422	15.4	39.6	0.46
80	90	3341	11.0	10.5	10.8	12.4	13.1	1.65	3.7	7.2	0.33	2.26	31.7	109	1.73	0.140	0.132	9.6	0.38	3585	5130	273	75	D	F	0.0548	183.0	2.02	2753	11.5	160.3	1.77	1076	14.3	98.2	1.09	538	15.6	53.5	0.59
85	95	3117	11.5	10.9	11.2	12.8	13.5	1.71	3.8	7.4	0.33	2.42	32.3	107	1.79	0.140	0.133	9.5	0.39	3602	5130	271	75	D	F	0.0618	192.5	2.02	2649	11.9	171.6	1.80	1181	14.5	114.6	1.20	648	15.8	68.1	0.71
90	100	2913	12.0	11.4	11.5	13.1	13.8	1.76	3.9	7.7	0.33	2.58	32.9	106	1.85	0.141	0.134	9.5	0.39	3609	5130	268	75	D	F	0.0691	201.2	2.00	2538	12.3	181.8	1.81	1261	14.8	129.9	1.29	746	16.0	82.9	0.82
95	105	2726	12.5	11.9	11.8	13.4	14.2	1.82	4.0	7.9	0.33	2.74	33.3	105	1.92	0.142	0.135	9.4	0.40	3609	5130	264	75	D	F	0.0766	208.9	1.98	2423	12.7	190.8	1.81	1317	15.0	143.8	1.36	831	16.2	97.3	0.92
100	110	2556	12.9	12.3	12.1	13.8	14.5	1.87	4.1	8.2	0.33	2.90	33.6	104	1.98	0.144	0.136	9.3	0.40	3603	5130	260	74	D	F	0.0845	215.9	1.95	2309	13.1	198.9	1.80	1354	15.3	156.5	1.42	901	16.5	111.2	1.01
105	115	2400	13.4	12.8	12.4	14.1	14.8	1.92	4.1	8.4	0.33	3.07	33.8	103	2.04	0.145	0.138	9.2	0.40	3591	5130	256	74	D	F	0.0925	222.0	1.92	2198	13.5	206.1	1.78	1373	15.6	167.7	1.45	957	16.7	124.2	1.08
110	120	2257	13.9	13.2	12.7	14.3	15.1	1.97	4.2	8.6	0.33	3.23	34.0	101	2.10	0.147	0.139	9.1	0.40	3576	5130	252	73	D	F	0.1007	227.3	1.89	2091	13.8	212.3	1.76	1378	15.8	177.7	1.47	999	16.9	136.3	1.13
115	125	2127	14.3	13.7	12.9	14.6	15.4	2.02	4.3	8.8	0.33	3.40	34.1	100	2.17	0.149	0.141	9.0	0.40	3558	5130	248	72	D	F	0.1091	232.1	1.85	1989	14.2	217.9	1.74	1372	16.1	186.5	1.49	1029	17.2	147.3	1.17
120	130	2007	14.7	14.1	13.2	14.8	15.6	2.07	4.4	8.9	0.33	3.56	34.2	99	2.23	0.150	0.143	8.9	0.40	3538	5130	243	72	D	F	0.1176	236.1	1.81	1892	14.6	222.6	1.71	1358	16.4	194.2	1.49	1048	17.4	157.2	1.20
125	135	1898	15.2	14.5	13.4	15.1	15.9	2.12	4.5	9.1	0.33	3.73	34.2	98	2.30	0.152	0.145	8.8	0.40	3516	5130	239	71	D	F	0.1263	239.7	1.77	1801	15.0	226.8	1.67	1338	16.7	201.0	1.48	1058	17.7	166.2	1.23
130	140	1798	15.6	14.9	13.6	15.3	16.1	2.17	4.6	9.2	0.33	3.90	34.2	97	2.36	0.154	0.146	8.7	0.40	3492	5130	235	70	D	F	0.1350	242.8	1.73	1716	15.3	230.5	1.64	1313	17.0	206.9	1.47	1062	17.9	174.3	1.24
135	145	1706	16.0	15.3	13.9	15.5	16.3	2.21	4.7	9.3	0.33	4.07	34.2	96	2.42	0.156	0.148	8.6	0.40	3468	5130	231	69	C	F	0.1439	245.5	1.69	1637	15.7	233.7	1.61	1284	17.3	211.9	1.46	1059	18.2	181.5	1.25
140	150	1621	16.4	15.7	14.1	15.7	16.5	2.26	4.8	9.5	0.33	4.23	34.1	95	2.48	0.158	0.150	8.4	0.40	3444	5130	227	69	C	F	0.1528	247.7	1.65	1562	16.1	236.4	1.57	1253	17.5	216.3	1.44	1051	18.4	187.9	1.25
145	155	1543	16.8	16.1	14.3	15.9	16.7	2.30	4.9	9.6	0.33	4.40	34.1	94	2.55	0.160	0.152	8.3	0.40	3419	5130	223	68	C	F	0.1618	249.6	1.61	1492	16.4	238.7	1.54	1221	17.8	220.1	1.42	1040	18.7	193.5	1.24
150	160	1471	17.2	16.4	14.4	16.1	16.9	2.34	4.9	9.7	0.33	4.57	34.0	93	2.61	0.162	0.154	8.2	0.39	3395	5130	219	67	C	F	0.1707	251.1	1.56	1427	16.8	240.6	1.50	1189	18.1	223.4	1.39	1025	18.9	198.4	1.24
155	165	1404	17.5	16.8	14.6	16.3	17.1	2.39	5.0	9.7	0.33	4.73	33.9	92	2.67	0.164	0.156	8.1	0.39	3371	5130	215	66	C	F	0.1797	252.3	1.52	1366	17.1	242.2	1.46	1155	18.4	226.0	1.37	1009	19.2	202.8	1.23
160	170	1342	17.9	17.2	14.8	16.4	17.3	2.43	5.1	9.8	0.34	4.90	33.8	91	2.73	0.166	0.158	8.0	0.39	3347	5130	212	66	C	F	0.1887	253.3	1.49	1309	17.5	243.4	1.43	1122	18.7	228.3	1.34	990	19.4	206.5	1.21
165	175	1285	18.3	17.5	14.9	16.6	17.4	2.47	5.2	9.9	0.34	5.06	33.7	90	2.79	0.168	0.160	7.9	0.39	3324	5130	208	65	C	F	0.1977	254.1	1.45	1256	17.8	244.5	1.39	1090	19.0	230.2	1.31	971	19.7	209.8	1.20
170	180	1232	18.6	17.9	15.1	16.7	17.6	2.51	5.2	10.0	0.34	5.23	33.5	89	2.85	0.170	0.162	7.8	0.38	3301	5130	205	64	C	F	0.2067	254.6	1.41	1207	18.1	245.4	1.36	1059	19.2	231.9	1.28	951	19.9	212.7	1.18
175	185	1183	19.0	18.2	15.2	16.9	17.7	2.55	5.3	10.0	0.34	5.39	33.4	88	2.91	0.172	0.164	7.7	0.38	3279	5130	202	64	C	F	0.2156	255.1	1.38	1161	18.4	246.1	1.33	1028	19.5	233.2	1.26	931	20.2	215.2	1.16
180	190	1138	19.3	18.5	15.4	17.0	17.9	2.59	5.4	10.1	0.34	5.55	33.3	87	2.96	0.174	0.166	7.6	0.38	3258	5130	199	63	C	F	0.2245	255.5	1.34	1118	18.8	246.7	1.30	999	19.8	234.4	1.23	911	20.5	217.5	1.14
SI = 10 m Initial Density = 9000 stems/ha																																								
5	15	8933	0.9	0.9	1.8	2.2	2.3	0.68	1.3	0.4	0.76	0.36	0.6	234	1.06	0.482	0.465	0.6	0.01	1099	5644	54	32	B	F	0.0001	0.6	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	8769	1.9	1.8	2.6	3.2	3.3	0.73	1.6	0.8	0.67	0.42	2.5	156	1.07	0.338	0.324	1.8	0.03	1382	5644	91	37	B	F	0.0004	3.3	0.16	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	8517	2.8	2.6	3.4	4.1	4.3	0.80	1.9	1.3	0.59	0.50	5.2	138	1.08	0.263	0.252	3.1	0.06	1689	5644	128	43	B	F	0.0011	9.1	0.36	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	8191	3.6	3.3	4.2	5.0	5.3	0.86	2.1	1.8	0.53	0.60	8.2	131	1.10	0.220	0.209	4.3	0.09	2000	5644	163	49	B	F	0.0022	17.9	0.59	2	8.1	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	7810	4.3	4.0	4.9	5.9	6.2	0.93	2.3	2.4	0.48	0.70	11.4	127	1.13	0.192	0.182	5.5	0.13	2299	5644	193	55	C	F	0.0038	29.6	0.83	69	8.2	0.8	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	40	7390	5.0	4.7	5.6	6.7	7.1	1.00	2.5	2.9	0.45	0.81	14.5	125	1.16	0.173	0.164	6.5	0.17	2574	5644	219	60	C	F	0.0059	43.4	1.07	396	8.3	5.4	0.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	45	6951	5.7	5.3	6.3	7.5	7.9	1.07	2.6	3.5	0.42	0.93	17.5	123	1.20	0.161	0.152	7.4	0.21	2819	5644	241	64	C	F	0.0085	58.8	1.29	982	8.5	15.5	0.34	2	12.3	0.1	0.00	0	0.0	0.0	0.00
40	50	6506	6.3	5.9	6.9	8.2	8.6	1.13	2.7	4.0	0.40	1.05	20.3	121	1.24	0.152	0.143	8.1	0.24	3032	5644	258	68	C	F	0.0115	75.1	1.49	1636	8.7	30.3	0.60	12	12.7	0.6	0.01	0	0.0	0.0	0.00
45	55	6067	6.9	6.5	7.5	8.8	9.3	1.20	2.8	4.5	0.38	1.18	22.8	119	1.28	0.145	0.137	8.7	0.27	3211	5644	270	72	D	F	0.0151	91.6	1.65	2203	8.9	47.9	0.86	47	12.8	2.6	0.05	4	14.4	0.2	0.00
50	60	5644	7.5	7.1	8.0	9.4	10.0	1.26	2.9	4.9	0.37	1.31	25.0	118	1.33	0.141	0.133	9.1	0.30	3359	5644	280	74	D	F	0.0191	107.9	1.78	2624	9.2	66.6	1.10	124	13.0	7.5	0.12	15	14.6	1.0	0.02
55	65	5242	8.1	7.6	8.5	10.0	10.6	1.33	3.0	5.4	0.36	1.45	26.9	117	1.38	0.138	0.130	9.5	0.32	3478	5644	286	76	D	F	0.0236	123.7	1.89	2897	9.5	85.4	1.30	248	13.1	16.1	0.25	44	14.7	3.2	0.05
60	70	4865	8.6	8.2	9.0	10.6	11.2	1.39	3.1	5.8	0.35	1.59	28.6	115	1.43	0.136	0.128	9.7	0.34	3572	5644	290	77	D	F	0.0285	138.7	1.97	3046	9.9	103.5	1.47	407	13.3	28.2	0.40	98	14.9	7.6	0.11
65	75	4514	9.2	8.7	9.5	11.0	11.7	1.45	3.3	6.1	0.34	1.74	30.0	114	1.49	0.135	0.127	9.9	0.36	3643	5644	292	78	D	F	0.0338	152.7	2.02	3101	10.2	120.5	1.60	585	13.5	43.3	0.57	177	15.0	14.5	0.19
70	80	4189	9.7	9.2	9.9	11.5	12.2	1.51	3.4	6.5	0.33	1.88	31.1	112	1.55	0.134	0.127	10.0	0.38	3695	5644	292	79	D	F	0.0395	165.6	2.06	3086	10.6	136.1	1.69	763	13.7	60.2	0.75	278	15.2	24.2	0.30
75	85	3892	10.2	9.7	10.3	11.9	12.6	1.57	3.5	6.8	0.33	2.03	32.1	111	1.60	0.134	0.127	10.0	0.39	3730	5644	290	79	D	F	0.0456	177.5	2.08	3027	11.0	150.5	1.76	928	13.9	78.0	0.91	392	15.4	36.2	0.42
80	90	3619	10.8	10.2	10.7	12.3	13.1	1.62	3.6	7.1	0.33	2.19	32.9	110	1.66	0.135	0.127	10.0	0.40	3752	5644	288	79	D	F	0.0520	188.3	2.08	2936	11.3	163.5	1.81	1071	14.2	95.7	1.06	510	15.5	49.8	0.55
85	95	3370	11.3	10.7	11.0	12.7	13.5	1.68	3.7	7.4	0.32	2.34	33.5	108	1.72	0.135	0.128	10.0	0.40	3763	5644	285	79	D	F	0.0588	198.0	2.07	2826	11.7	175.2	1.83	1188	14.4	112.7	1.18	625	15.7	64.4	0.67
90	100	3143	11.7	11.2	11.4	13.1	13.8	1.73	3.8	7.7	0.32	2.50	34.0	107	1.78	0.136	0.129	9.9	0.41	3764	5644	281	78	D	F	0.0658	206.8	2.06	2708	12.1	185.7	1.85	1279	14.6	128.6	1.28	730	15.9	79.4	0.79
95	105	2936	12.2	11.6	11.7	13.4	14.2	1.79	3.9	7.9	0.32	2.66	34.4	106	1.85	0.138	0.130	9.9	0.41	3758	5644	277	78	D	F	0.0731	214.6	2.03	2585	12.5	195.0	1.85	1345	14.9	143.3	1.36	822	16.1	94.2	0.89
100	110	2747	12.7	12.1	12.0	13.7	14.5	1.84	4.0	8.1	0.32	2.81	34.7	105	1.91	0.139	0.132	9.8	0.42	3746	5644	272	77	D	F	0.0806	221.4	2.00	2462	12.9	203.2	1.84	1389	15.2	156.5	1.42	899	16.3	108.5	0.98
105	115	2575	13.1	12.5	12.3	14.0	14.8	1.89	4.1	8.4	0.32	2.98	34.9	104	1.97	0.141	0.133	9.6	0.42	3729	5644	268	77	D	F	0.0883	227.5	1.97	2342	13.2	210.4	1.82	1414	15.4	168.3	1.46	962	16.6	122.0	1.06
110	120	2418	13.6	13.0	12.6	14.3	15.1	1.94	4.1	8.5	0.32	3.14	35.1	102	2.03	0.142	0.135	9.5	0.42	3709	5644	263	76	D	F	0.0963	232.9	1.93	2226	13.6	216.8	1.80	1424	15.7	178.8	1.48	1010	16.8	134.5	1.12
115	125	2275	14.0	13.4	12.8	14.6	15.4	1.99	4.2	8.7	0.32	3.30	35.2	101	2.10	0.144	0.136	9.4	0.42	3686	5644	258	75	D	F	0.1044	237.6	1.89	2116	14.0	222.4	1.77	1422	16.0	188.0	1.50	1045	17.0	146.0	1.16
120	130	2145	14.5	13.8	13.1	14.8	15.6	2.04	4.3	8.9	0.32	3.46	35.2	100	2.16	0.146	0.138	9.3	0.42	3661	5644	254	74	D	F	0.1127	241.7	1.85	2012	14.4	227.4	1.74	1411	16.2	196.2	1.50	1070	17.3	156.5	1.20
125	135	2025	14.9	14.2	13.3	15.0	15.9	2.09	4.4	9.0	0.32	3.62	35.2	99	2.22	0.148	0.140	9.1	0.42	3634	5644	249	73	D	F	0.1211	245.2	1.81	1914	14.7	231.5	1.71	1392	16.5	203.2	1.50	1084	17.5	165.9	1.22
130	140	1915	15.3	14.6	13.5	15.3	16.1	2.13	4.5	9.2	0.32	3.79	35.2	98	2.29	0.150	0.142	9.0	0.41	3607	5644	244	73	D	F	0.1296	248.1	1.77	1821	15.1	235.1	1.67	1367	16.8	209.3	1.49	1090	17.7	174.4	1.24
135	145	1815	15.7	15.0	13.7	15.5	16.3	2.18	4.6	9.3	0.32	3.95	35.1	97	2.35	0.152	0.144	8.9	0.41	3578	5644	240	72	D	F	0.1382	250.8	1.72	1735	15.5	238.3	1.64	1339	17.1	214.7	1.48	1090	18.0	182.0	1.25
140	150	1723	16.1	15.4	13.9	15.7	16.5	2.23	4.7	9.4	0.33	4.12	35.1	96	2.41	0.154	0.146	8.7	0.41	3550	5644	235	71	D	F	0.1468	253.0	1.68	1655	15.8	241.1	1.60	1308	17.3	219.3	1.46	1084	18.2	188.7	1.25
145	155	1638	16.5	15.8	14.1	15.9	16.7	2.27	4.8	9.5	0.33	4.28	35.0	95	2.47	0.156	0.148	8.6	0.41	3522	5644	231	70	D	F	0.1556	254.8	1.64	1580	16.2	243.3	1.56	1275	17.6	223.2	1.44	1074	18.5	194.6	1.25
150	160	1560	16.9	16.2	14.3	16.1	16.9	2.31	4.8	9.6	0.33	4.44	34.9	94	2.53	0.158	0.150	8.5	0.40	3494	5644	227	69	C	F	0.1643	256.3	1.60	1510	16.5	245.3	1.53	1241	17.9	226.6	1.41	1061	18.7	199.8	1.24
155	165	1487	17.2	16.5	14.5	16.2	17.1	2.35	4.9	9.7	0.33	4.61	34.7	93	2.59	0.160	0.152	8.4	0.40	3466	5644	223	68	C	F	0.1730	257.3	1.55	1443	16.9	246.7	1.49	1207	18.2	229.3	1.39	1044	19.0	204.3	1.23
160	170	1421	17.6	16.9	14.6	16.4	17.3	2.40	5.0	9.8	0.33	4.77	34.6	92	2.65	0.162	0.154	8.2	0.40	3439	5644	219	68	C	F	0.1818	258.4	1.52	1383	17.2	248.1	1.46	1173	18.5	231.8	1.36	1027	19.2	208.4	1.22
165	175	1359	18.0	17.2	14.8	16.5	17.4	2.44	5.1	9.9	0.33	4.93	34.5	91	2.71	0.164	0.156	8.1	0.40	3413	5644	216	67	C	F	0.1907	259.1	1.48	1326	17.5	249.1	1.42	1140	18.7	233.8	1.33	1007	19.5	211.8	1.21
170	180	1302	18.3	17.6	14.9	16.7	17.6	2.48	5.1	9.9	0.34	5.09	34.4	90	2.77	0.166	0.158	8.0	0.39	3387	5644	212	66	C	F	0.1994	259.6	1.44	1273	17.9	249.9	1.38	1107	19.0	235.5	1.30	987	19.7	214.9	1.19
175	185	1249	18.7	17.9	15.1	16.8	17.7	2.51	5.2	10.0	0.34	5.25	34.2	89	2.83	0.168	0.160	7.9	0.39	3362	5644	209	66	C	F	0.2082	260.0	1.40	1223	18.2	250.6	1.35	1075	19.3	236.9	1.28	967	20.0	217.5	1.17
180	190	1199	19.0	18.3	15.2	17.0	17.9	2.55	5.3	10.0	0.34	5.41	34.1	88	2.89	0.170	0.162	7.8	0.39	3338	5644	205	65	C	F	0.2168	260.0	1.36	1176	18.5	250.8	1.32	1044	19.6	237.9	1.25	945	20.2	219.6	1.15

Table A25. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 10 m Initial Density = 10000 stems/ha																																								
5	15	9922	0.9	0.8	1.8	2.2	2.3	0.67	1.3	0.4	0.75	0.36	0.6	241	1.00	0.458	0.441	0.7	0.01	1212	6148	58	35	B	F	0.0001	0.6	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	9732	1.9	1.7	2.6	3.2	3.3	0.73	1.6	0.8	0.66	0.42	2.7	160	1.01	0.321	0.308	1.9	0.03	1512	6148	98	41	B	F	0.0004	3.5	0.17	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	9439	2.7	2.5	3.4	4.1	4.3	0.79	1.9	1.3	0.58	0.49	5.4	141	1.03	0.251	0.239	3.3	0.06	1835	6148	138	47	B	F	0.0010	9.4	0.37	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	9061	3.5	3.2	4.1	5.0	5.3	0.85	2.1	1.8	0.52	0.58	8.6	133	1.05	0.209	0.199	4.6	0.10	2160	6148	174	53	C	F	0.0021	18.6	0.61	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	8620	4.2	3.9	4.9	5.9	6.2	0.92	2.2	2.4	0.48	0.68	11.9	129	1.08	0.183	0.174	5.8	0.14	2470	6148	207	59	C	F	0.0036	30.7	0.87	53	8.2	0.6	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	40	8137	4.9	4.6	5.6	6.7	7.1	0.99	2.4	2.9	0.44	0.79	15.2	126	1.11	0.166	0.157	6.9	0.18	2754	6148	234	64	C	F	0.0055	45.0	1.11	350	8.2	4.6	0.11	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	45	7633	5.5	5.2	6.2	7.5	7.9	1.05	2.5	3.5	0.41	0.90	18.3	124	1.14	0.154	0.145	7.8	0.22	3004	6148	256	69	C	F	0.0080	60.9	1.34	933	8.4	14.4	0.32	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	50	7125	6.2	5.8	6.8	8.2	8.6	1.12	2.6	4.0	0.39	1.02	21.2	122	1.18	0.145	0.137	8.5	0.25	3219	6148	274	73	D	F	0.0109	77.6	1.54	1617	8.6	29.1	0.58	8	12.7	0.4	0.01	0	0.0	0.0	0.00
45	55	6627	6.8	6.4	7.4	8.8	9.3	1.18	2.7	4.5	0.37	1.15	23.7	121	1.23	0.139	0.131	9.1	0.29	3398	6148	287	76	D	F	0.0143	94.6	1.70	2233	8.8	46.9	0.85	37	12.8	2.0	0.04	3	14.2	0.2	0.00
50	60	6148	7.3	6.9	7.9	9.4	10.0	1.25	2.9	4.9	0.36	1.27	26.0	119	1.28	0.135	0.128	9.6	0.31	3545	6148	296	78	D	F	0.0181	111.3	1.84	2701	9.1	66.2	1.09	104	12.9	6.2	0.10	11	14.6	0.7	0.01
55	65	5695	7.9	7.5	8.5	10.0	10.6	1.31	3.0	5.3	0.35	1.41	28.0	118	1.33	0.133	0.125	9.9	0.34	3661	6148	302	80	D	F	0.0224	127.4	1.95	3013	9.4	85.5	1.31	218	13.1	14.0	0.21	35	14.7	2.5	0.04
60	70	5272	8.5	8.0	8.9	10.5	11.2	1.37	3.1	5.7	0.34	1.54	29.7	116	1.38	0.131	0.123	10.2	0.36	3750	6148	306	81	D	F	0.0271	142.7	2.02	3190	9.8	104.2	1.48	372	13.3	25.4	0.36	81	14.8	6.2	0.09
65	75	4881	9.0	8.5	9.4	11.0	11.7	1.43	3.2	6.1	0.33	1.68	31.1	115	1.43	0.130	0.122	10.4	0.38	3816	6148	307	82	D	F	0.0322	157.0	2.08	3262	10.1	121.8	1.61	550	13.4	40.1	0.53	154	15.0	12.5	0.17
70	80	4520	9.5	9.0	9.8	11.5	12.2	1.49	3.3	6.5	0.33	1.83	32.2	113	1.49	0.130	0.122	10.4	0.39	3862	6148	306	83	D	F	0.0376	170.1	2.11	3257	10.5	138.1	1.72	733	13.6	56.9	0.71	250	15.1	21.5	0.27
75	85	4190	10.0	9.5	10.2	11.9	12.6	1.54	3.4	6.8	0.33	1.97	33.2	112	1.54	0.130	0.122	10.5	0.40	3892	6148	304	83	D	F	0.0435	182.2	2.13	3199	10.8	152.9	1.79	907	13.8	74.9	0.88	362	15.3	32.9	0.38
80	90	3889	10.6	10.0	10.6	12.3	13.1	1.60	3.5	7.1	0.32	2.12	34.0	111	1.60	0.130	0.123	10.5	0.41	3908	6148	302	83	D	F	0.0497	193.1	2.13	3107	11.2	166.3	1.84	1061	14.1	93.0	1.03	482	15.5	46.3	0.51
85	95	3615	11.0	10.5	10.9	12.7	13.5	1.66	3.6	7.4	0.32	2.27	34.6	109	1.66	0.131	0.124	10.4	0.42	3913	6148	298	82	D	F	0.0561	202.9	2.12	2993	11.6	178.3	1.87	1189	14.3	110.5	1.16	600	15.6	60.8	0.64
90	100	3365	11.5	11.0	11.3	13.0	13.8	1.71	3.7	7.6	0.32	2.43	35.1	108	1.72	0.132	0.125	10.3	0.42	3908	6148	294	82	D	F	0.0629	211.7	2.11	2868	11.9	189.0	1.88	1290	14.5	127.0	1.26	710	15.8	75.8	0.75
95	105	3138	12.0	11.4	11.6	13.4	14.2	1.76	3.8	7.9	0.32	2.58	35.5	107	1.79	0.133	0.126	10.2	0.43	3897	6148	289	81	D	F	0.0699	219.5	2.08	2737	12.3	198.5	1.88	1365	14.8	142.2	1.35	809	16.0	90.9	0.86
100	110	2932	12.5	11.9	11.9	13.7	14.5	1.82	3.9	8.1	0.32	2.74	35.8	106	1.85	0.135	0.127	10.1	0.43	3880	6148	284	80	D	F	0.0772	226.4	2.05	2607	12.7	206.9	1.87	1417	15.0	156.0	1.41	893	16.2	105.6	0.96
105	115	2745	12.9	12.3	12.2	14.0	14.8	1.87	4.0	8.3	0.32	2.89	36.0	104	1.91	0.136	0.129	10.0	0.43	3858	6148	279	79	D	F	0.0847	232.6	2.01	2479	13.0	214.3	1.86	1449	15.3	168.4	1.46	962	16.5	119.5	1.03
110	120	2574	13.4	12.8	12.4	14.3	15.1	1.92	4.1	8.5	0.32	3.05	36.1	103	1.97	0.138	0.131	9.9	0.43	3833	6148	274	79	D	F	0.0924	237.9	1.97	2355	13.4	220.8	1.83	1464	15.5	179.4	1.49	1017	16.7	132.5	1.10
115	125	2419	13.8	13.2	12.7	14.5	15.4	1.97	4.2	8.7	0.32	3.21	36.2	102	2.03	0.140	0.132	9.7	0.43	3805	6148	268	78	D	F	0.1003	242.6	1.93	2238	13.8	226.5	1.80	1466	15.8	189.1	1.51	1058	16.9	144.5	1.15
120	130	2277	14.2	13.6	12.9	14.8	15.6	2.01	4.2	8.9	0.32	3.37	36.2	101	2.10	0.142	0.134	9.6	0.43	3775	6148	263	77	D	F	0.1083	246.6	1.89	2126	14.2	231.4	1.77	1457	16.1	197.6	1.51	1087	17.1	155.4	1.19
125	135	2148	14.6	14.0	13.2	15.0	15.9	2.06	4.3	9.0	0.32	3.53	36.2	100	2.16	0.144	0.136	9.4	0.43	3744	6148	258	76	D	F	0.1165	250.2	1.85	2022	14.5	235.7	1.74	1440	16.3	205.0	1.51	1105	17.4	165.3	1.22
130	140	2029	15.0	14.4	13.4	15.2	16.1	2.11	4.4	9.2	0.32	3.69	36.1	99	2.22	0.146	0.138	9.3	0.43	3713	6148	253	75	D	F	0.1247	253.1	1.80	1922	14.9	239.4	1.70	1416	16.6	211.3	1.50	1114	17.6	174.1	1.24
135	145	1921	15.5	14.8	13.6	15.4	16.3	2.15	4.5	9.3	0.32	3.85	36.0	97	2.28	0.148	0.140	9.2	0.42	3681	6148	248	74	D	F	0.1331	255.6	1.76	1831	15.2	242.6	1.67	1389	16.9	217.0	1.49	1117	17.8	182.0	1.25
140	150	1821	15.8	15.2	13.8	15.6	16.5	2.20	4.6	9.4	0.32	4.01	35.9	96	2.34	0.150	0.142	9.0	0.42	3649	6148	244	73	D	F	0.1415	257.7	1.71	1744	15.6	245.2	1.63	1358	17.2	221.7	1.47	1113	18.1	189.0	1.26
145	155	1730	16.2	15.5	14.0	15.8	16.7	2.24	4.7	9.5	0.32	4.17	35.8	95	2.40	0.152	0.144	8.9	0.42	3617	6148	239	72	D	F	0.1500	259.5	1.67	1664	15.9	247.5	1.59	1325	17.4	225.9	1.45	1105	18.3	195.3	1.26
150	160	1645	16.6	15.9	14.2	16.0	16.9	2.28	4.8	9.6	0.33	4.33	35.7	94	2.47	0.154	0.146	8.7	0.42	3586	6148	235	71	D	F	0.1585	260.8	1.63	1588	16.3	249.3	1.55	1290	17.7	229.2	1.43	1092	18.6	200.7	1.25
155	165	1568	17.0	16.3	14.3	16.2	17.1	2.32	4.8	9.7	0.33	4.49	35.5	93	2.53	0.156	0.148	8.6	0.41	3555	6148	230	70	D	F	0.1671	262.0	1.58	1519	16.6	250.9	1.52	1255	18.0	232.2	1.40	1077	18.8	205.5	1.24
160	170	1496	17.4	16.6	14.5	16.3	17.3	2.37	4.9	9.8	0.33	4.65	35.4	92	2.59	0.158	0.150	8.5	0.41	3525	6148	226	70	C	F	0.1757	262.8	1.54	1453	17.0	252.1	1.48	1220	18.3	234.7	1.38	1059	19.1	209.7	1.23
165	175	1430	17.7	17.0	14.6	16.5	17.4	2.41	5.0	9.9	0.33	4.81	35.2	91	2.64	0.160	0.152	8.4	0.41	3495	6148	222	69	C	F	0.1843	263.5	1.50	1393	17.3	253.1	1.44	1186	18.5	236.8	1.35	1040	19.3	213.3	1.22
170	180	1369	18.1	17.3	14.8	16.7	17.6	2.45	5.1	9.9	0.33	4.97	35.1	90	2.70	0.162	0.154	8.3	0.40	3467	6148	219	68	C	F	0.1928	264.0	1.46	1336	17.6	253.9	1.41	1152	18.8	238.6	1.32	1020	19.6	216.6	1.20
175	185	1312	18.4	17.7	14.9	16.8	17.7	2.48	5.1	10.0	0.33	5.13	34.9	89	2.76	0.164	0.156	8.1	0.40	3440	6148	215	67	C	F	0.2014	264.3	1.42	1283	17.9	254.5	1.37	1118	19.1	240.0	1.29	1000	19.8	219.4	1.18
180	190	1259	18.8	18.0	15.1	16.9	17.9	2.52	5.2	10.0	0.34	5.29	34.8	88	2.82	0.166	0.158	8.0	0.40	3413	6148	212	67	C	F	0.2099	264.3	1.39	1234	18.2	254.8	1.34	1086	19.4	241.1	1.27	978	20.1	221.6	1.16
SI = 10 m Initial Density = 15000 stems/ha																																								
5	15	14864	0.8	0.7	1.8	2.2	2.3	0.67	1.2	0.4	0.73	0.35	0.7	277	0.82	0.375	0.360	0.8	0.01	1767	8549	80	52	C	F	0.0000	0.6	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	14529	1.7	1.5	2.5	3.1	3.3	0.71	1.5	0.8	0.63	0.40	3.1	174	0.83	0.264	0.252	2.4	0.04	2141	8549	132	58	C	F	0.0003	3.9	0.19	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	14015	2.4	2.3	3.3	4.1	4.3	0.77	1.7	1.3	0.55	0.47	6.5	151	0.84	0.207	0.196	4.2	0.08	2532	8549	182	65	C	F	0.0008	10.8	0.42	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	13357	3.1	2.9	4.0	5.0	5.3	0.82	1.9	1.8	0.49	0.54	10.3	142	0.87	0.173	0.164	5.8	0.12	2913	8549	228	72	D	F	0.0016	21.3	0.70	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	12598	3.8	3.5	4.7	5.8	6.2	0.88	2.0	2.4	0.45	0.63	14.2	136	0.89	0.152	0.144	7.3	0.17	3264	8549	268	79	D	F	0.0028	35.0	0.99	14	8.1	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	40	11780	4.4	4.1	5.4	6.6	7.1	0.94	2.1	2.9	0.41	0.72	18.1	133	0.92	0.139	0.130	8.6	0.22	3575	8549	301	84	D	F	0.0043	51.2	1.26	196	8.0	2.3	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	45	10940	5.0	4.7	6.0	7.4	7.9	1.00	2.3	3.4	0.39	0.81	21.7	130	0.96	0.129	0.121	9.7	0.26	3839	8549	326	89	D	F	0.0063	69.0	1.52	706	8.2	9.7	0.21	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	50	10108	5.6	5.3	6.6	8.1	8.6	1.06	2.4	3.9	0.37	0.92	24.9	128	0.99	0.123	0.115	10.5	0.31	4055	8549	346	93	D	F	0.0087	87.6	1.73	1384	8.4	22.5	0.45	1	12.5	0.1	0.00	0	0.0	0.0	0.00
45	55	9306	6.2	5.8	7.1	8.7	9.3	1.12	2.5	4.4	0.35	1.03	27.8	126	1.04	0.119	0.111	11.2	0.34	4227	8549	359	95	D	F	0.0114	106.3	1.92	2231	8.5	41.1	0.74	11	12.6	0.6	0.01	0	0.0	0.0	0.00
50	60	8549	6.7	6.3	7.6	9.3	10.0	1.18	2.6	4.8	0.34	1.14	30.3	124	1.08	0.116	0.108	11.7	0.37	4357	8549	368	97	D	F	0.0146	124.5	2.06	2855	8.8	61.4	1.02	42	12.8	2.4	0.04	2	14.4	0.2	0.00
55	65	7845	7.3	6.9	8.1	9.9	10.6	1.24	2.7	5.2	0.33	1.26	32.4	122	1.13	0.114	0.106	12.0	0.40	4453	8549	372	98	D	F	0.0181	142.0	2.17	3445	9.0	83.7	1.28	112	12.9	6.8	0.10	11	14.5	0.7	0.01
60	70	7198	7.8	7.4	8.6	10.4	11.2	1.29	2.8	5.6	0.32	1.38	34.2	121	1.18	0.113	0.106	12.3	0.42	4518	8549	374	99	D	F	0.0220	158.4	2.25	3736	9.3	104.6	1.48	226	13.0	14.8	0.21	32	14.6	2.4	0.03
65	75	6607	8.3	7.9	9.0	10.9	11.7	1.35	2.9	6.0	0.32	1.50	35.7	119	1.23	0.113	0.105	12.4	0.44	4558	8549	373	99	D	F	0.0263	173.5	2.30	3890	9.6	124.4	1.65	383	13.2	26.6	0.35	76	14.7	5.9	0.08
70	80	6070	8.8	8.3	9.4	11.4	12.2	1.40	3.0	6.3	0.31	1.63	36.8	118	1.28	0.113	0.105	12.4	0.46	4578	8549	370	99	D	F	0.0309	187.5	2.33	3935	9.9	142.8	1.77	565	13.4	41.6	0.52	144	14.9	11.8	0.15
75	85	5585	9.3	8.8	9.8	11.8	12.6	1.46	3.1	6.7	0.31	1.76	37.8	116	1.34	0.113	0.106	12.4	0.47	4580	8549	366	98	D	F	0.0358	200.1	2.34	3903	10.3	159.6	1.87	758	13.5	58.9	0.69	237	15.0	20.4	0.24
80	90	5148	9.8	9.3	10.1	12.2	13.1	1.51	3.2	6.9	0.31	1.89	38.5	115	1.39	0.114	0.107	12.3	0.47	4569	8549	360	97	D	F	0.0411	211.5	2.34	3815	10.6	174.7	1.93	943	13.7	77.5	0.86	347	15.2	31.4	0.35
85	95	4754	10.2	9.7	10.5	12.6	13.5	1.56	3.3	7.2	0.31	2.03	39.1	113	1.45	0.115	0.108	12.2	0.48	4548	8549	354	96	D	F	0.0466	221.6	2.32	3692	10.9	188.2	1.97	1111	13.9	96.4	1.01	467	15.3	44.5	0.47
90	100	4399	10.7	10.2	10.8	12.9	13.8	1.62	3.4	7.5	0.30	2.17	39.5	112	1.51	0.117	0.109	12.1	0.48	4518	8549	347	95	D	F	0.0524	230.7	2.30	3549	11.3	200.1	1.99	1255	14.1	114.9	1.14	590	15.5	59.0	0.59
95	105	4079	11.1	10.6	11.1	13.2	14.2	1.67	3.5	7.7	0.30	2.31	39.8	110	1.57	0.118	0.110	11.9	0.49	4483	8549	340	94	D	F	0.0585	238.7	2.26	3395	11.6	210.7	2.00	1373	14.4	132.4	1.26	708	15.7	74.2	0.70
100	110	3791	11.6	11.0	11.4	13.5	14.5	1.72	3.5	8.0	0.30	2.45	40.0	109	1.62	0.120	0.112	11.7	0.49	4442	8549	333	93	D	F	0.0648	245.7	2.22	3235	12.0	219.9	1.99	1464	14.6	148.5	1.34	816	15.9	89.7	0.81
105	115	3531	12.0	11.5	11.7	13.8	14.8	1.77	3.6	8.2	0.30	2.59	40.1	108	1.68	0.122	0.114	11.6	0.49	4398	8549	326	91	D	F	0.0713	251.8	2.18	3076	12.3	228.0	1.97	1529	14.8	163.3	1.41	910	16.1	104.8	0.91
110	120	3296	12.4	11.9	11.9	14.1	15.1	1.81	3.7	8.4	0.30	2.73	40.1	106	1.74	0.123	0.115	11.4	0.49	4352	8549	319	90	D	F	0.0780	257.2	2.13	2923	12.7	235.0	1.95	1573	15.0	176.5	1.46	992	16.3	119.4	0.99
115	125	3083	12.9	12.3	12.2	14.4	15.4	1.86	3.8	8.5	0.30	2.88	40.1	105	1.80	0.125	0.117	11.2	0.48	4304	8549	312	89	D	F	0.0849	261.8	2.09	2775	13.0	241.1	1.92	1600	15.3	188.3	1.50	1059	16.5	133.1	1.06
120	130	2890	13.3	12.7	12.4	14.6	15.6	1.91	3.9	8.7	0.30	3.02	40.0	104	1.86	0.127	0.119	11.0	0.48	4255	8549	305	87	D	F	0.0919	265.7	2.04	2633	13.4	246.4	1.89	1609	15.5	198.6	1.52	1109	16.7	145.8	1.12
125	135	2714	13.7	13.1	12.6	14.8	15.9	1.95	4.0	8.9	0.31	3.17	39.9	103	1.92	0.129	0.121	10.8	0.48	4206	8549	298	86	D	F	0.0991	269.0	1.99	2499	13.7	250.9	1.85	1606	15.8	207.7	1.53	1148	16.9	157.5	1.16
130	140	2554	14.1	13.4	12.8	15.1	16.1	2.00	4.1	9.0	0.31	3.32	39.7	102	1.98	0.131	0.123	10.6	0.48	4158	8549	291	85	D	F	0.1065	271.9	1.94	2374	14.0	254.8	1.81	1616	16.0	216.9	1.54	1176	17.1	168.1	1.20
135	145	2409	14.5	13.8	13.0	15.3	16.3	2.04	4.2	9.1	0.31	3.46	39.6	101	2.04	0.133	0.125	10.4	0.47	4110	8549	285	83	D	F	0.1138	274.2	1.88	2256	14.4	258.0	1.77	1595	16.2	223.6	1.54	1195	17.3	177.7	1.22
140	150	2276	14.8	14.2	13.2	15.5	16.5	2.08	4.3	9.3	0.31	3.61	39.4	99	2.10	0.136	0.127	10.2	0.47	4062	8549	279	82	D	F	0.1213	276.1	1.83	2145	14.7	260.8	1.73	1565	16.5	229.3	1.52	1204	17.5	186.2	1.24
145	155	2154	15.2	14.6	13.4	15.7	16.7	2.13	4.3	9.4	0.31	3.76	39.2	98	2.15	0.138	0.129	10.0	0.46	4016	8549	273	81	D	F	0.1289	277.6	1.79	2042	15.0	263.0	1.69	1517	16.8	233.3	1.50	1205	17.7	193.9	1.25
150	160	2042	15.6	14.9	13.6	15.8	16.9	2.17	4.4	9.5	0.31	3.91	39.0	97	2.21	0.140	0.131	9.9	0.46	3970	8549	267	80	D	F	0.1365	278.8	1.74	1949	15.4	264.9	1.65	1486	17.0	237.6	1.48	1203	18.0	200.6	1.25
155	165	1939	15.9	15.3	13.7	16.0	17.1	2.21	4.5	9.6	0.31	4.05	38.7	96	2.27	0.142	0.133	9.7	0.46	3926	8549	262	79	D	F	0.1442	279.7	1.69	1856	15.7	266.3	1.61	1448	17.3	241.2	1.46	1193	18.2	206.6	1.25
160	170	1845	16.3	15.6	13.9	16.2	17.3	2.25	4.6	9.6	0.32	4.20	38.5	95	2.33	0.144	0.135	9.5	0.45	3883	8549	256	77	D	F	0.1519	280.3	1.64	1771	16.0	267.5	1.57	1410	17.5	244.3	1.43	1179	18.4	211.8	1.24
165	175	1758	16.7	15.9	14.0	16.3	17.4	2.29	4.6	9.7	0.32	4.35	38.3	94	2.39	0.146	0.137	9.4	0.45	3842	8549	251	76	D	F	0.1597	280.7	1.60	1695	16.3	268.4	1.53	1374	17.8	246.8	1.41	1165	18.6	216.4	1.23
170	180	1677	17.0	16.3	14.2	16.5	17.6	2.33	4.7	9.8	0.32	4.50	38.0	93	2.44	0.148	0.139	9.2	0.44	3802	8549	247	75	D	F	0.1675	280.9	1.56	1623	16.6	269.0	1.49	1337	18.0	248.9	1.38	1147	18.9	220.4	1.22
175	185	1603	17.3	16.6	14.3	16.6	17.7	2.36	4.8	9.9	0.32	4.64	37.8	92	2.50	0.150	0.141	9.1	0.44	3764	8549	242	74	D	F	0.1752	280.8	1.51	1554	16.9	269.4	1.45	1299	18.3	250.5	1.35	1127	19.1	223.8	1.21
180	190	1533	17.7	16.9	14.5	16.7	17.9	2.40	4.9	9.9	0.32	4.79	37.6	91	2.55	0.153	0.143	8.9	0.43	3727	8549	238	73	D	F	0.1830	280.6	1.47	1492	17.2	269.5	1.41	1263	18.5	251.9	1.32	1107	19.3	226.8	1.19

Table A26. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 10 m Initial Density = 20000 stems/ha																																								
5	15	19800	0.7	0.6	1.7	2.2	2.3	0.67	1.1	0.5	0.71	0.35	0.8	307	0.71	0.326	0.312	0.9	0.01	2312	10811	101	69	C	F	0.0000	0.7	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	19306	1.5	1.4	2.5	3.1	3.3	0.71	1.4	0.8	0.61	0.39	3.5	185	0.72	0.230	0.218	2.8	0.04	2747	10811	162	76	D	F	0.0002	4.3	0.21	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	18550	2.2	2.1	3.2	4.1	4.3	0.75	1.6	1.3	0.53	0.45	7.3	159	0.73	0.181	0.170	4.9	0.09	3190	10811	223	83	D	F	0.0006	11.7	0.46	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	17588	2.9	2.7	3.9	5.0	5.3	0.80	1.7	1.8	0.47	0.51	11.6	148	0.75	0.152	0.143	6.8	0.14	3610	10811	276	91	D	F	0.0013	23.2	0.76	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	16487	3.5	3.3	4.6	5.8	6.2	0.86	1.9	2.4	0.43	0.59	16.0	142	0.78	0.134	0.125	8.5	0.20	3987	10811	322	97	D	F	0.0023	38.2	1.08	4	8.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	40	15313	4.1	3.9	5.2	6.6	7.1	0.91	2.0	2.9	0.40	0.67	20.3	138	0.81	0.122	0.114	10.0	0.25	4310	10811	359	103	D	F	0.0036	55.8	1.38	100	8.0	1.1	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	45	14121	4.7	4.4	5.8	7.4	7.9	0.97	2.1	3.4	0.37	0.76	24.3	135	0.84	0.114	0.107	11.2	0.30	4574	10811	387	107	D	F	0.0053	75.0	1.65	490	8.0	6.3	0.14	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	50	12956	5.2	4.9	6.4	8.0	8.6	1.02	2.2	3.9	0.35	0.85	27.9	132	0.88	0.109	0.102	12.2	0.35	4782	10811	407	110	D	F	0.0073	94.9	1.88	1134	8.2	17.1	0.34	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	55	11846	5.8	5.4	6.9	8.7	9.3	1.08	2.3	4.3	0.34	0.95	31.0	130	0.92	0.106	0.098	12.9	0.39	4938	10811	420	112	D	F	0.0097	114.7	2.07	2059	8.4	34.8	0.63	3	12.5	0.2	0.00	0	0.0	0.0	0.00
50	60	10811	6.3	5.9	7.4	9.3	10.0	1.13	2.4	4.8	0.33	1.05	33.7	128	0.96	0.104	0.096	13.4	0.42	5048	10811	428	114	D	F	0.0124	134.0	2.22	2822	8.6	55.4	0.92	17	12.7	1.0	0.02	0	0.0	0.0	0.00
55	65	9859	6.8	6.4	7.9	9.8	10.6	1.19	2.5	5.2	0.32	1.16	35.9	126	1.01	0.102	0.095	13.8	0.45	5120	10811	431	114	D	F	0.0155	152.4	2.33	3598	8.8	79.0	1.21	57	12.8	3.4	0.05	3	14.4	0.2	0.00
60	70	8992	7.3	6.9	8.3	10.4	11.2	1.24	2.6	5.5	0.31	1.27	37.7	124	1.05	0.102	0.094	14.0	0.47	5160	10811	431	114	D	F	0.0189	169.5	2.40	4030	9.0	101.5	1.44	137	12.9	8.7	0.12	13	14.5	1.0	0.01
65	75	8208	7.8	7.4	8.7	10.8	11.7	1.30	2.7	5.9	0.31	1.38	39.2	122	1.10	0.102	0.094	14.0	0.49	5174	10811	428	113	D	F	0.0226	185.3	2.45	4290	9.3	123.1	1.63	262	13.0	17.7	0.23	37	14.6	2.9	0.04
70	80	7503	8.3	7.8	9.1	11.3	12.2	1.35	2.8	6.2	0.30	1.50	40.4	121	1.15	0.102	0.095	14.0	0.51	5168	10811	423	112	D	F	0.0266	199.7	2.48	4410	9.6	143.3	1.78	426	13.2	30.3	0.38	83	14.7	6.6	0.08
75	85	6871	8.7	8.3	9.5	11.7	12.6	1.40	2.9	6.5	0.30	1.62	41.3	119	1.21	0.103	0.095	14.0	0.52	5146	10811	416	111	D	F	0.0310	212.8	2.49	4425	9.9	161.7	1.89	615	13.3	46.0	0.54	153	14.9	12.8	0.15
80	90	6305	9.2	8.7	9.8	12.1	13.1	1.45	2.9	6.8	0.30	1.74	42.0	117	1.26	0.104	0.096	13.8	0.52	5111	10811	409	110	D	F	0.0356	224.4	2.48	4367	10.2	178.2	1.97	813	13.5	63.9	0.71	247	15.0	21.5	0.24
85	95	5799	9.7	9.2	10.1	12.5	13.5	1.50	3.0	7.1	0.29	1.87	42.5	116	1.31	0.105	0.098	13.7	0.53	5066	10811	400	108	D	F	0.0405	234.9	2.46	4251	10.5	193.0	2.02	1002	13.7	82.9	0.87	356	15.1	32.6	0.34
90	100	5345	10.1	9.6	10.4	12.8	13.8	1.55	3.1	7.4	0.29	1.99	42.9	114	1.37	0.107	0.099	13.5	0.53	5015	10811	392	106	D	F	0.0457	244.1	2.43	4105	10.9	206.1	2.05	1175	13.9	102.1	1.02	478	15.3	45.7	0.45
95	105	4939	10.5	10.0	10.7	13.1	14.2	1.60	3.2	7.6	0.29	2.12	43.1	113	1.42	0.108	0.100	13.3	0.53	4958	10811	383	105	D	F	0.0511	252.2	2.39	3939	11.2	217.6	2.06	1325	14.1	120.9	1.15	601	15.5	60.1	0.57
100	110	4575	11.0	10.4	11.0	13.4	14.5	1.65	3.3	7.8	0.29	2.25	43.2	112	1.48	0.110	0.102	13.1	0.53	4898	10811	374	103	D	F	0.0567	259.3	2.35	3764	11.5	227.6	2.06	1449	14.3	138.7	1.26	722	15.6	75.4	0.68
105	115	4247	11.4	10.8	11.3	13.7	14.8	1.69	3.4	8.0	0.29	2.38	43.3	110	1.53	0.112	0.104	12.8	0.53	4835	10811	365	101	D	F	0.0625	265.5	2.30	3586	11.8	236.4	2.05	1546	14.5	155.1	1.34	834	15.8	90.9	0.79
110	120	3953	11.8	11.2	11.5	14.0	15.1	1.74	3.5	8.2	0.29	2.52	43.2	109	1.59	0.114	0.105	12.6	0.53	4772	10811	356	99	D	F	0.0685	270.8	2.25	3409	12.2	244.0	2.03	1618	14.7	170.1	1.41	933	16.0	106.1	0.88
115	125	3687	12.2	11.6	11.7	14.2	15.4	1.79	3.6	8.4	0.29	2.65	43.1	108	1.65	0.116	0.107	12.3	0.53	4707	10811	347	98	D	F	0.0747	275.4	2.19	3236	12.5	250.6	2.00	1666	14.9	183.6	1.46	1017	16.1	120.8	0.96
120	130	3446	12.6	12.0	12.0	14.5	15.6	1.83	3.7	8.6	0.30	2.78	43.0	106	1.70	0.118	0.109	12.1	0.52	4643	10811	339	96	D	F	0.0811	279.3	2.14	3072	12.8	256.2	1.96	1732	15.1	197.6	1.51	1090	16.3	134.7	1.03
125	135	3229	13.0	12.4	12.2	14.7	15.9	1.87	3.8	8.7	0.30	2.92	42.8	105	1.76	0.120	0.111	11.9	0.52	4580	10811	330	94	D	F	0.0875	282.6	2.09	2915	13.1	261.0	1.93	1743	15.3	208.0	1.54	1147	16.5	147.7	1.09
130	140	3031	13.4	12.8	12.4	14.9	16.1	1.92	3.9	8.9	0.30	3.06	42.6	104	1.82	0.122	0.113	11.6	0.51	4517	10811	323	93	D	F	0.0942	285.4	2.03	2769	13.4	265.1	1.89	1742	15.5	217.0	1.54	1193	16.7	159.6	1.14
135	145	2852	13.8	13.1	12.6	15.1	16.3	1.96	3.9	9.0	0.30	3.19	42.3	103	1.87	0.124	0.115	11.4	0.51	4456	10811	315	91	D	F	0.1008	287.6	1.98	2630	13.8	268.5	1.85	1730	15.8	224.9	1.55	1226	16.9	170.5	1.17
140	150	2688	14.1	13.5	12.8	15.3	16.5	2.00	4.0	9.1	0.30	3.33	42.1	102	1.93	0.126	0.117	11.2	0.50	4396	10811	308	90	D	F	0.1077	289.4	1.92	2500	14.1	271.4	1.80	1709	16.0	231.7	1.54	1250	17.1	180.4	1.20
145	155	2538	14.5	13.8	12.9	15.5	16.7	2.04	4.1	9.2	0.30	3.47	41.8	101	1.98	0.128	0.119	11.0	0.50	4338	10811	301	88	D	F	0.1146	290.8	1.87	2376	14.4	273.8	1.76	1682	16.2	237.6	1.53	1262	17.3	189.2	1.22
150	160	2401	14.8	14.2	13.1	15.7	16.9	2.08	4.2	9.3	0.30	3.61	41.5	99	2.04	0.130	0.121	10.8	0.49	4282	10811	294	87	D	F	0.1216	291.9	1.82	2261	14.7	275.7	1.72	1629	16.5	241.4	1.50	1267	17.5	197.1	1.23
155	165	2276	15.2	14.5	13.3	15.9	17.1	2.12	4.3	9.4	0.31	3.75	41.3	98	2.10	0.132	0.123	10.6	0.49	4227	10811	288	85	D	F	0.1286	292.6	1.77	2156	15.0	277.2	1.68	1597	16.8	245.8	1.49	1267	17.7	204.2	1.23
160	170	2160	15.5	14.9	13.4	16.0	17.3	2.16	4.3	9.5	0.31	3.89	41.0	97	2.15	0.134	0.125	10.4	0.48	4175	10811	281	84	D	F	0.1357	293.1	1.72	2056	15.3	278.4	1.63	1560	17.0	249.4	1.46	1260	17.9	210.4	1.23
165	175	2054	15.9	15.2	13.6	16.2	17.4	2.20	4.4	9.6	0.31	4.02	40.7	96	2.21	0.136	0.127	10.2	0.48	4124	10811	275	83	D	F	0.1428	293.3	1.67	1963	15.6	279.2	1.59	1522	17.2	252.5	1.44	1250	18.1	215.8	1.23
170	180	1956	16.2	15.5	13.7	16.3	17.6	2.24	4.5	9.7	0.31	4.16	40.4	95	2.26	0.139	0.129	10.0	0.47	4075	10811	270	81	D	F	0.1499	293.3	1.63	1875	15.9	279.8	1.55	1483	17.5	255.0	1.41	1236	18.4	220.6	1.22
175	185	1866	16.5	15.8	13.8	16.5	17.7	2.27	4.6	9.7	0.31	4.30	40.1	94	2.31	0.141	0.131	9.9	0.47	4027	10811	264	80	D	F	0.1571	293.2	1.58	1798	16.2	280.1	1.51	1448	17.7	257.1	1.39	1222	18.6	224.8	1.21
180	190	1782	16.9	16.1	14.0	16.6	17.9	2.31	4.6	9.8	0.32	4.44	39.8	93	2.37	0.143	0.133	9.7	0.46	3982	10811	259	79	D	F	0.1643	292.8	1.54	1722	16.5	280.2	1.47	1408	17.9	258.7	1.36	1203	18.8	228.4	1.20
SI = 10 m Initial Density = 30000 stems/ha																																								
5	15	29662	0.6	0.5	1.6	2.2	2.3	0.66	1.1	0.5	0.68	0.34	0.8	360	0.58	0.268	0.255	1.0	0.01	3384	15073	139	102	D	F	0.0000	0.7	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	28821	1.3	1.2	2.3	3.1	3.3	0.69	1.3	0.9	0.58	0.38	4.0	204	0.59	0.189	0.179	3.5	0.05	3918	15073	219	109	D	F	0.0002	4.7	0.23	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	27537	2.0	1.9	3.0	4.0	4.3	0.74	1.4	1.3	0.50	0.43	8.5	171	0.60	0.149	0.140	6.1	0.11	4436	15073	295	117	D	F	0.0005	13.2	0.52	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	25918	2.6	2.4	3.7	4.9	5.3	0.78	1.6	1.8	0.45	0.48	13.7	158	0.62	0.126	0.118	8.5	0.17	4906	15073	362	125	D	F	0.0010	26.1	0.86	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	24087	3.2	3.0	4.3	5.8	6.2	0.83	1.7	2.4	0.40	0.55	18.9	150	0.64	0.112	0.104	10.6	0.24	5307	15073	417	131	D	F	0.0018	42.9	1.21	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	40	22163	3.7	3.5	4.9	6.6	7.1	0.88	1.8	2.8	0.37	0.61	23.9	145	0.67	0.102	0.095	12.4	0.30	5629	15073	460	136	D	F	0.0028	62.4	1.54	26	7.9	0.3	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	45	20242	4.2	4.0	5.5	7.3	7.9	0.92	1.9	3.3	0.35	0.69	28.4	141	0.70	0.096	0.089	13.8	0.36	5874	15073	491	139	D	F	0.0041	83.5	1.84	225	7.9	2.7	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	50	18394	4.7	4.5	6.0	8.0	8.6	0.97	1.9	3.8	0.33	0.77	32.5	138	0.74	0.092	0.085	14.9	0.41	6048	15073	512	141	D	F	0.0057	105.2	2.08	706	8.1	9.7	0.19	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	55	16663	5.2	4.9	6.5	8.6	9.3	1.02	2.0	4.2	0.32	0.85	35.9	136	0.77	0.090	0.083	15.7	0.46	6160	15073	524	142	D	F	0.0076	126.7	2.28	1605	8.1	24.3	0.44	0	0.0	0.0	0.00	0	0.0	0.0	0.00
50	60	15073	5.7	5.4	7.0	9.2	10.0	1.07	2.1	4.6	0.31	0.94	38.8	133	0.81	0.089	0.081	16.2	0.50	6223	15073	530	142	D	F	0.0098	147.4	2.44	2502	8.3	43.4	0.72	3	12.5	0.2	0.00	0	0.0	0.0	0.00
55	65	13633	6.2	5.8	7.4	9.7	10.6	1.12	2.2	5.0	0.30	1.03	41.2	131	0.86	0.088	0.081	16.5	0.53	6244	15073	530	141	D	F	0.0122	166.9	2.55	3539	8.5	67.7	1.03	16	12.6	0.9	0.01	0	0.0	0.0	0.00
60	70	12339	6.7	6.3	7.9	10.3	11.2	1.17	2.3	5.4	0.29	1.13	43.1	129	0.90	0.088	0.081	16.7	0.55	6232	15073	526	139	D	F	0.0150	185.0	2.62	4210	8.7	91.7	1.30	50	12.7	3.1	0.04	2	14.4	0.2	0.00
65	75	11184	7.1	6.7	8.3	10.7	11.7	1.22	2.4	5.7	0.29	1.23	44.6	127	0.95	0.088	0.081	16.7	0.57	6196	15073	519	137	D	F	0.0180	201.6	2.67	4685	8.9	115.6	1.53	122	12.8	7.9	0.10	10	14.5	0.7	0.01
70	80	10157	7.6	7.2	8.6	11.2	12.2	1.27	2.5	6.0	0.29	1.33	45.8	125	0.99	0.089	0.081	16.6	0.58	6142	15073	510	135	D	F	0.0213	216.7	2.69	4977	9.2	138.3	1.72	236	13.0	16.0	0.20	29	14.6	2.2	0.03
75	85	9245	8.0	7.6	9.0	11.6	12.6	1.32	2.6	6.3	0.28	1.43	46.7	123	1.04	0.090	0.082	16.5	0.59	6073	15073	500	133	D	F	0.0249	230.2	2.69	5119	9.5	159.3	1.86	390	13.1	27.6	0.32	66	14.7	5.2	0.06
80	90	8436	8.4	8.0	9.3	12.0	13.1	1.37	2.7	6.6	0.28	1.54	47.3	121	1.09	0.091	0.083	16.3	0.60	5994	15073	488	130	D	F	0.0287	242.3	2.68	5142	9.7	178.3	1.97	571	13.2	42.5	0.47	122	14.8	10.2	0.11
85	95	7719	8.9	8.4	9.6	12.3	13.5	1.41	2.8	6.9	0.28	1.65	47.7	120	1.14	0.092	0.085	16.0	0.60	5909	15073	476	127	D	F	0.0328	253.0	2.65	5078	10.0	195.3	2.05	767	13.4	59.7	0.63	202	14.9	17.6	0.18
90	100	7081	9.3	8.8	9.9	12.7	13.8	1.46	2.8	7.1	0.28	1.76	48.0	118	1.19	0.094	0.086	15.8	0.61	5819	15073	464	125	D	F	0.0371	262.5	2.61	4957	10.3	210.3	2.09	966	13.6	78.5	0.78	302	15.0	27.3	0.27
95	105	6514	9.7	9.2	10.2	13.0	14.2	1.51	2.9	7.4	0.28	1.88	48.2	117	1.24	0.095	0.087	15.5	0.61	5727	15073	452	122	D	F	0.0416	270.8	2.57	4796	10.6	223.6	2.12	1153	13.7	97.8	0.93	416	15.2	39.1	0.37
100	110	6008	10.1	9.6	10.4	13.3	14.5	1.55	3.0	7.6	0.28	1.99	48.2	115	1.29	0.097	0.089	15.2	0.60	5633	15073	440	120	D	F	0.0463	278.0	2.52	4610	10.9	235.1	2.13	1321	13.9	117.0	1.06	538	15.3	52.5	0.48
105	115	5556	10.5	10.0	10.7	13.6	14.8	1.59	3.1	7.8	0.28	2.11	48.1	114	1.34	0.099	0.091	14.8	0.60	5540	15073	428	117	D	F	0.0512	284.3	2.46	4412	11.1	245.1	2.12	1464	14.1	135.4	1.17	659	15.4	67.0	0.58
110	120	5151	10.9	10.4	10.9	13.8	15.1	1.64	3.2	8.0	0.28	2.23	48.0	113	1.39	0.101	0.092	14.5	0.60	5447	15073	416	115	D	F	0.0562	289.7	2.40	4210	11.4	253.8	2.11	1585	14.2	152.8	1.27	778	15.6	82.1	0.68
115	125	4788	11.3	10.7	11.1	14.1	15.4	1.68	3.3	8.1	0.28	2.34	47.8	111	1.45	0.103	0.094	14.2	0.59	5355	15073	405	112	D	F	0.0615	294.3	2.35	4010	11.7	261.3	2.08	1729	14.4	171.7	1.37	888	15.7	97.3	0.78
120	130	4461	11.6	11.1	11.3	14.3	15.6	1.72	3.4	8.3	0.28	2.47	47.5	110	1.50	0.105	0.096	13.9	0.59	5266	15073	394	110	D	F	0.0668	298.2	2.29	3814	12.0	267.7	2.05	1796	14.6	186.0	1.43	987	15.9	112.2	0.86
125	135	4166	12.0	11.4	11.5	14.5	15.9	1.76	3.4	8.5	0.28	2.59	47.2	109	1.55	0.107	0.098	13.6	0.58	5179	15073	384	108	D	F	0.0723	301.4	2.22	3624	12.3	273.2	2.02	1842	14.8	198.9	1.47	1073	16.1	126.6	0.93
130	140	3899	12.4	11.8	11.7	14.7	16.1	1.81	3.5	8.6	0.29	2.71	46.9	107	1.60	0.109	0.099	13.3	0.58	5094	15073	374	106	D	F	0.0780	304.1	2.16	3442	12.6	277.8	1.98	1870	15.0	210.3	1.50	1145	16.2	140.2	1.00
135	145	3657	12.7	12.1	11.9	14.9	16.3	1.85	3.6	8.8	0.29	2.83	46.6	106	1.65	0.111	0.101	13.1	0.57	5011	15073	364	104	D	F	0.0837	306.2	2.10	3272	12.9	281.7	1.94	1884	15.2	220.3	1.51	1207	16.4	152.9	1.05
140	150	3437	13.1	12.5	12.1	15.1	16.5	1.88	3.7	8.9	0.29	2.95	46.2	105	1.71	0.113	0.103	12.8	0.56	4932	15073	355	102	D	F	0.0896	308.0	2.05	3108	13.2	285.0	1.89	1882	15.4	229.1	1.52	1253	16.6	164.7	1.09
145	155	3237	13.4	12.8	12.2	15.3	16.7	1.92	3.8	9.0	0.29	3.08	45.9	104	1.76	0.115	0.105	12.5	0.56	4855	15073	346	100	D	F	0.0955	309.2	1.99	2955	13.5	287.6	1.85	1871	15.6	236.7	1.52	1290	16.8	175.4	1.13
150	160	3054	13.8	13.1	12.4	15.5	16.9	1.96	3.8	9.1	0.29	3.20	45.5	103	1.81	0.117	0.107	12.3	0.55	4781	15073	338	98	D	F	0.1016	310.2	1.93	2812	13.8	289.8	1.81	1852	15.8	243.3	1.52	1317	16.9	185.2	1.15
155	165	2887	14.1	13.5	12.5	15.6	17.1	2.00	3.9	9.2	0.29	3.33	45.1	102	1.86	0.119	0.109	12.0	0.54	4709	15073	330	96	D	F	0.1077	310.8	1.88	2681	14.1	291.5	1.76	1803	16.1	247.5	1.50	1336	17.1	194.0	1.17
160	170	2733	14.4	13.8	12.7	15.8	17.3	2.04	4.0	9.3	0.30	3.45	44.7	100	1.91	0.121	0.111	11.8	0.54	4641	15073	322	94	D	F	0.1138	311.1	1.82	2551	14.4	292.8	1.72	1772	16.3	252.4	1.48	1343	17.3	202.0	1.18
165	175	2592	14.8	14.1	12.8	16.0	17.4	2.07	4.1	9.4	0.30	3.58	44.4	99	1.96	0.123	0.113	11.5	0.53	4575	15073	315	93	D	F	0.1201	311.2	1.77	2436	14.6	293.7	1.67	1740	16.5	256.6	1.46	1348	17.5	209.0	1.19
170	180	2463	15.1	14.4	12.9	16.1	17.6	2.11	4.1	9.4	0.30	3.70	44.0	98	2.01	0.125	0.115	11.3	0.52	4511	15073	308	91	D	F	0.1263	311.0	1.72	2326	14.9	294.3	1.63	1706	16.7	260.2	1.44	1346	17.7	215.3	1.19
175	185	2343	15.4	14.7	13.1	16.2	17.7	2.14	4.2	9.5	0.30	3.83	43.6	97	2.07	0.127	0.117	11.1	0.52	4450	15073	301	90	D	F	0.1326	310.6	1.67	2224	15.2	294.7	1.59	1669	16.9	263.1	1.42	1340	17.9	220.9	1.19
180	190	2233	15.7	15.0	13.2	16.4	17.9	2.18	4.3	9.6	0.30	3.95	43.3	96	2.12	0.129	0.119	10.9	0.51	4392	15073	295	88	D	F	0.1389	310.1	1.63	2127	15.5	294.8	1.55	1629	17.1	265.5	1.39	1328	18.1	225.7	1.18

Table A27. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
		SI = 10 m Initial Density = 50000 stems/ha																																						
5	15	49357	0.4	0.4	1.6	2.2	2.3	0.66	1.0	0.5	0.64	0.34	0.8	457	0.45	0.209	0.198	1.2	0.01	5484	22981	211	168	D	F	0.0000	0.6	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	47747	1.1	1.0	2.2	3.1	3.3	0.68	1.1	0.9	0.54	0.37	4.7	232	0.46	0.148	0.139	4.5	0.07	6166	22981	319	175	D	F	0.0001	5.3	0.26	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	45297	1.7	1.6	2.9	4.0	4.3	0.72	1.2	1.4	0.47	0.40	10.3	189	0.47	0.117	0.109	7.9	0.14	6775	22981	421	183	D	F	0.0003	15.0	0.59	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	42239	2.2	2.1	3.5	4.9	5.3	0.75	1.3	1.8	0.41	0.45	16.6	171	0.49	0.100	0.092	11.1	0.22	7280	22981	507	189	D	F	0.0007	29.8	0.98	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	38835	2.7	2.6	4.1	5.7	6.2	0.79	1.4	2.3	0.37	0.50	23.0	162	0.51	0.089	0.082	13.9	0.30	7667	22981	576	194	D	F	0.0013	48.8	1.38	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	40	35322	3.2	3.0	4.6	6.5	7.1	0.83	1.5	2.8	0.34	0.55	28.9	155	0.53	0.082	0.075	16.1	0.38	7937	22981	627	196	D	F	0.0020	70.8	1.75	2	7.8	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	45	31884	3.7	3.5	5.1	7.2	7.9	0.88	1.6	3.2	0.32	0.61	34.3	151	0.56	0.078	0.071	17.8	0.45	8101	22981	661	196	D	F	0.0030	94.2	2.07	45	7.8	0.5	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	50	28643	4.2	3.9	5.6	7.9	8.6	0.92	1.7	3.6	0.31	0.68	38.9	147	0.59	0.075	0.068	19.1	0.51	8178	22981	681	194	D	F	0.0041	118.1	2.34	251	7.9	3.1	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	55	25666	4.6	4.3	6.1	8.5	9.3	0.96	1.8	4.0	0.30	0.75	42.8	143	0.62	0.073	0.067	20.0	0.56	8185	22981	690	192	D	F	0.0055	141.4	2.55	857	7.9	11.4	0.21	0	0.0	0.0	0.00	0	0.0	0.0	0.00
50	60	22981	5.1	4.8	6.5	9.1	10.0	1.01	1.8	4.4	0.29	0.82	46.0	140	0.66	0.073	0.066	20.5	0.60	8139	22981	691	188	D	F	0.0071	163.7	2.71	1691	8.1	25.5	0.42	0	0.0	0.0	0.00	0	0.0	0.0	0.00
55	65	20588	5.5	5.2	6.9	9.6	10.6	1.05	1.9	4.8	0.28	0.90	48.6	138	0.70	0.072	0.066	20.8	0.64	8055	22981	685	184	D	F	0.0090	184.6	2.82	2895	8.2	47.1	0.72	1	12.5	0.1	0.00	0	0.0	0.0	0.00
60	70	18473	5.9	5.6	7.3	10.1	11.2	1.09	2.0	5.1	0.28	0.97	50.6	135	0.74	0.073	0.066	20.8	0.66	7942	22981	675	180	D	F	0.0110	203.8	2.89	3858	8.3	70.7	1.00	8	12.6	0.5	0.01	0	0.0	0.0	0.00
65	75	16611	6.3	6.0	7.6	10.6	11.7	1.14	2.1	5.4	0.27	1.06	52.2	133	0.78	0.073	0.066	20.7	0.68	7810	22981	662	175	D	F	0.0133	221.3	2.93	4665	8.5	95.9	1.27	27	12.7	1.7	0.02	1	14.3	0.1	0.00
70	80	14977	6.7	6.4	8.0	11.0	12.2	1.18	2.2	5.7	0.27	1.14	53.3	131	0.82	0.074	0.067	20.5	0.69	7666	22981	646	171	D	F	0.0158	237.0	2.94	5275	8.7	121.1	1.50	71	12.7	4.6	0.06	3	14.4	0.3	0.00
75	85	13542	7.1	6.7	8.3	11.4	12.6	1.22	2.2	6.0	0.27	1.23	54.1	129	0.86	0.075	0.068	20.3	0.70	7515	22981	629	166	D	F	0.0185	251.1	2.94	5691	8.9	145.2	1.70	151	12.9	10.1	0.12	13	14.5	1.0	0.01
80	90	12282	7.5	7.1	8.6	11.8	13.1	1.27	2.3	6.3	0.27	1.32	54.7	127	0.90	0.077	0.069	19.9	0.71	7361	22981	612	162	D	F	0.0215	263.7	2.91	5929	9.2	167.5	1.85	267	13.0	18.7	0.21	31	14.6	2.5	0.03
85	95	11174	7.9	7.5	8.8	12.1	13.5	1.31	2.4	6.5	0.26	1.41	55.0	125	0.95	0.078	0.070	19.6	0.71	7205	22981	594	158	D	F	0.0246	274.7	2.88	6028	9.4	187.8	1.97	418	13.1	30.4	0.32	66	14.7	5.4	0.06
90	100	10198	8.3	7.9	9.1	12.5	13.8	1.35	2.5	6.8	0.26	1.50	55.2	123	0.99	0.079	0.072	19.1	0.71	7051	22981	576	153	D	F	0.0279	284.5	2.83	6017	9.6	206.0	2.05	596	13.2	45.0	0.45	119	14.8	10.1	0.10
95	105	9336	8.7	8.2	9.4	12.8	14.2	1.39	2.6	7.0	0.26	1.60	55.2	122	1.03	0.081	0.073	18.7	0.71	6899	22981	559	149	D	F	0.0314	293.0	2.78	5926	9.9	222.1	2.11	787	13.3	61.6	0.58	191	14.9	16.8	0.16
100	110	8572	9.0	8.6	9.6	13.1	14.5	1.43	2.7	7.2	0.27	1.70	55.1	120	1.08	0.083	0.074	18.3	0.70	6751	22981	542	145	D	F	0.0350	300.4	2.72	5780	10.1	236.2	2.14	982	13.5	79.7	0.72	282	15.0	25.5	0.23
105	115	7894	9.4	8.9	9.8	13.3	14.8	1.47	2.7	7.4	0.27	1.79	54.8	119	1.13	0.084	0.076	17.9	0.70	6607	22981	526	142	D	F	0.0389	306.7	2.66	5597	10.4	248.6	2.15	1169	13.6	98.4	0.85	386	15.1	36.1	0.31
110	120	7289	9.8	9.3	10.0	13.6	15.1	1.51	2.8	7.6	0.27	1.89	54.6	117	1.17	0.086	0.078	17.5	0.69	6467	22981	510	138	D	F	0.0428	312.2	2.59	5390	10.6	259.3	2.15	1404	13.7	120.8	1.00	498	15.2	48.3	0.40
115	125	6750	10.1	9.6	10.2	13.8	15.4	1.55	2.9	7.8	0.27	1.99	54.2	116	1.22	0.088	0.079	17.1	0.69	6333	22981	495	135	D	F	0.0469	316.8	2.52	5170	10.9	268.5	2.14	1557	13.8	139.0	1.11	615	15.3	61.6	0.49
120	130	6266	10.5	9.9	10.4	14.1	15.6	1.59	3.0	7.9	0.27	2.10	53.8	114	1.26	0.090	0.081	16.6	0.68	6203	22981	480	131	D	F	0.0512	320.7	2.46	4945	11.1	276.5	2.12	1686	14.0	156.2	1.20	730	15.4	75.6	0.58
125	135	5831	10.8	10.3	10.6	14.3	15.9	1.63	3.1	8.1	0.27	2.20	53.4	113	1.31	0.092	0.083	16.3	0.67	6078	22981	466	128	D	F	0.0556	324.0	2.39	4724	11.4	283.3	2.09	1794	14.1	172.1	1.27	842	15.6	89.9	0.66
130	140	5440	11.1	10.6	10.8	14.5	16.1	1.66	3.1	8.2	0.27	2.30	53.0	112	1.36	0.094	0.084	15.9	0.66	5959	22981	453	125	D	F	0.0600	326.6	2.32	4505	11.6	289.0	2.06	1879	14.3	186.8	1.33	947	15.7	104.3	0.74
135	145	5086	11.5	10.9	10.9	14.7	16.3	1.70	3.2	8.4	0.27	2.41	52.5	111	1.40	0.096	0.086	15.5	0.65	5844	22981	440	122	D	F	0.0646	328.8	2.26	4294	11.9	293.9	2.02	1944	14.5	200.1	1.38	1042	15.9	118.3	0.81
140	150	4766	11.8	11.2	11.1	14.9	16.5	1.74	3.3	8.5	0.27	2.51	52.0	109	1.45	0.097	0.088	15.2	0.64	5734	22981	428	120	D	F	0.0693	330.4	2.20	4090	12.2	298.0	1.98	1988	14.7	212.0	1.41	1124	16.0	131.8	0.88
145	155	4475	12.1	11.5	11.2	15.0	16.7	1.77	3.4	8.6	0.28	2.62	51.5	108	1.49	0.099	0.089	14.8	0.64	5628	22981	417	117	D	F	0.0741	331.6	2.13	3897	12.4	301.4	1.94	2018	14.8	222.7	1.43	1197	16.1	144.6	0.93
150	160	4210	12.4	11.8	11.4	15.2	16.9	1.81	3.4	8.7	0.28	2.72	51.1	107	1.54	0.101	0.091	14.5	0.63	5527	22981	406	115	D	F	0.0790	332.5	2.07	3713	12.7	304.2	1.90	2033	15.0	232.1	1.45	1259	16.3	156.6	0.98
155	165	3968	12.7	12.1	11.5	15.4	17.1	1.84	3.5	8.8	0.28	2.83	50.6	106	1.59	0.103	0.093	14.2	0.62	5430	22981	395	112	D	F	0.0839	333.0	2.01	3538	12.9	306.4	1.85	2035	15.2	240.3	1.45	1308	16.4	167.8	1.01
160	170	3747	13.0	12.4	11.6	15.5	17.3	1.88	3.6	8.9	0.28	2.94	50.1	105	1.63	0.105	0.095	13.9	0.61	5338	22981	385	110	D	F	0.0889	333.2	1.95	3374	13.2	308.2	1.81	1992	15.4	245.4	1.44	1349	16.6	178.2	1.05
165	175	3544	13.3	12.7	11.8	15.7	17.4	1.91	3.6	9.0	0.28	3.05	49.6	104	1.68	0.107	0.096	13.6	0.60	5249	22981	376	108	D	F	0.0940	333.1	1.90	3220	13.4	309.5	1.76	1980	15.6	251.9	1.44	1380	16.8	187.7	1.07
170	180	3358	13.6	13.0	11.9	15.8	17.6	1.95	3.7	9.1	0.29	3.15	49.1	102	1.73	0.109	0.098	13.3	0.59	5164	22981	367	106	D	F	0.0991	332.8	1.84	3076	13.7	310.4	1.72	1962	15.8	257.4	1.43	1404	16.9	196.3	1.09
175	185	3187	13.9	13.3	12.0	15.9	17.7	1.98	3.8	9.2	0.29	3.26	48.6	101	1.77	0.111	0.100	13.0	0.58	5083	22981	358	104	D	F	0.1043	332.3	1.79	2939	13.9	311.0	1.68	1937	16.0	262.2	1.41	1420	17.1	204.1	1.10
180	190	3029	14.2	13.6	12.1	16.1	17.9	2.01	3.9	9.2	0.29	3.37	48.2	100	1.82	0.113	0.102	12.8	0.58	5005	22981	350	102	D	F	0.1095	331.6	1.74	2811	14.2	311.4	1.63	1908	16.2	266.3	1.40	1429	17.2	211.1	1.11
		SI = 10 m Initial Density = 80000 stems/ha																																						
5	15	78859	0.3	0.3	1.5	2.1	2.3	0.66	0.9	0.6	0.61	0.34	0.7	603	0.36	0.166	0.156	1.2	0.01	8572	33980	313	266	D	F	0.0000	0.5	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	75979	0.9	0.9	2.1	3.1	3.3	0.68	1.0	0.9	0.51	0.36	5.3	264	0.36	0.118	0.110	5.5	0.08	9414	33980	455	272	D	F	0.0001	5.7	0.28	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	71610	1.5	1.4	2.7	4.0	4.3	0.70	1.1	1.4	0.43	0.39	12.1	208	0.37	0.094	0.087	10.0	0.17	10080	33980	585	278	D	F	0.0002	16.6	0.65	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	66209	1.9	1.8	3.2	4.8	5.3	0.73	1.2	1.8	0.38	0.42	19.6	186	0.39	0.080	0.074	14.1	0.27	10559	33980	694	280	D	F	0.0005	33.2	1.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	60281	2.4	2.2	3.8	5.7	6.2	0.77	1.2	2.2	0.35	0.46	27.2	174	0.41	0.072	0.066	17.6	0.37	10853	33980	776	279	D	F	0.0009	54.3	1.53	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	40	54265	2.8	2.6	4.3	6.4	7.1	0.80	1.3	2.7	0.32	0.51	34.2	166	0.43	0.067	0.061	20.3	0.46	10983	33980	834	276	D	F	0.0014	78.4	1.94	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	45	48480	3.3	3.1	4.7	7.1	7.9	0.84	1.4	3.1	0.30	0.56	40.4	160	0.45	0.064	0.058	22.4	0.54	10981	33980	869	270	D	F	0.0021	103.9	2.28	4	7.7	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	50	43120	3.7	3.4	5.2	7.8	8.6	0.87	1.5	3.5	0.29	0.61	45.7	155	0.48	0.062	0.056	23.8	0.61	10881	33980	886	263	D	F	0.0030	129.6	2.57	52	7.7	0.6	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	55	38279	4.1	3.8	5.6	8.4	9.3	0.91	1.5	3.8	0.28	0.67	50.0	151	0.51	0.061	0.055	24.8	0.67	10711	33980	889	255	D	F	0.0040	154.5	2.78	310	7.8	3.7	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00
50	60	33980	4.5	4.2	6.0	9.0	10.0	0.95	1.6	4.2	0.27	0.73	53.5	147	0.54	0.060	0.054	25.3	0.72	10495	33980	882	247	D	F	0.0052	178.1	2.94	842	7.9	11.3	0.19	0	0.0	0.0	0.00	0	0.0	0.0	0.00
55	65	30204	4.9	4.6	6.4	9.5	10.6	0.99	1.7	4.5	0.26	0.79	56.2	144	0.58	0.061	0.054	25.5	0.75	10251	33980	868	238	D	F	0.0066	200.0	3.05	1863	7.9	26.5	0.40	0	0.0	0.0	0.00	0	0.0	0.0	0.00
60	70	26908	5.3	4.9	6.7	10.0	11.2	1.03	1.7	4.8	0.26	0.85	58.3	141	0.61	0.061	0.055	25.4	0.78	9992	33980	849	230	D	F	0.0082	220.0	3.12	2902	8.1	45.9	0.65	1	12.5	0.0	0.00	0	0.0	0.0	0.00
65	75	24040	5.6	5.3	7.0	10.4	11.7	1.06	1.8	5.1	0.26	0.92	59.9	139	0.64	0.062	0.055	25.2	0.80	9726	33980	827	222	D	F	0.0099	238.1	3.15	3938	8.2	69.2	0.92	3	12.5	0.2	0.00	0	0.0	0.0	0.00
70	80	21547	6.0	5.7	7.3	10.9	12.2	1.10	1.9	5.4	0.25	0.99	61.0	136	0.68	0.063	0.056	24.9	0.81	9460	33980	804	214	D	F	0.0118	254.4	3.16	4858	8.4	94.4	1.17	13	12.6	0.8	0.01	0	0.0	0.0	0.00
75	85	19379	6.4	6.0	7.6	11.3	12.6	1.14	2.0	5.7	0.25	1.07	61.7	134	0.72	0.064	0.057	24.5	0.82	9198	33980	779	207	D	F	0.0139	268.9	3.15	5601	8.6	120.0	1.40	38	12.7	2.4	0.03	1	14.3	0.1	0.00
80	90	17491	6.7	6.4	7.9	11.6	13.1	1.18	2.1	5.9	0.25	1.14	62.2	132	0.76	0.065	0.058	24.0	0.82	8944	33980	754	199	D	F	0.0161	281.7	3.11	6151	8.7	144.8	1.60	86	12.8	5.7	0.06	5	14.4	0.4	0.00
85	95	15842	7.1	6.7	8.1	12.0	13.5	1.22	2.1	6.2	0.25	1.22	62.4	130	0.79	0.066	0.059	23.5	0.82	8698	33980	729	193	D	F	0.0185	293.0	3.07	6514	8.9	168.1	1.76	164	12.8	11.3	0.12	13	14.5	1.0	0.01
90	100	14399	7.4	7.0	8.3	12.3	13.8	1.26	2.2	6.4	0.25	1.30	62.4	128	0.83	0.068	0.060	22.9	0.82	8462	33980	705	187	D	F	0.0210	302.9	3.01	6723	9.1	189.4	1.88	275	12.9	19.6	0.20	31	14.5	2.5	0.02
95	105	13132	7.8	7.4	8.6	12.6	14.2	1.29	2.3	6.6	0.25	1.38	62.3	126	0.87	0.069	0.062	22.3	0.81	8236	33980	681	181	D	F	0.0237	311.6	2.95	6798	9.3	208.7	1.98	415	13.0	30.6	0.29	60	14.6	5.1	0.05
100	110	12015	8.1	7.7	8.8	12.9	14.5	1.33	2.4	6.8	0.25	1.46	62.1	125	0.91	0.071	0.063	21.8	0.81	8020	33980	659	175	D	F	0.0266	319.1	2.89	6777	9.5	225.8	2.04	579	13.2	44.0	0.40	105	14.7	9.1	0.08
105	115	11028	8.4	8.0	9.0	13.1	14.8	1.37	2.4	7.0	0.25	1.54	61.7	123	0.95	0.073	0.064	21.2	0.80	7814	33980	637	170	D	F	0.0295	325.6	2.82	6681	9.7	241.0	2.09	759	13.3	59.3	0.51	167	14.8	14.7	0.13
110	120	10152	8.8	8.3	9.2	13.4	15.1	1.40	2.5	7.2	0.25	1.62	61.3	122	0.99	0.074	0.066	20.7	0.79	7618	33980	616	165	D	F	0.0326	331.1	2.75	6529	9.9	254.3	2.11	1004	13.3	79.7	0.66	244	14.9	22.1	0.18
115	125	9373	9.1	8.6	9.3	13.6	15.4	1.44	2.6	7.3	0.26	1.71	60.8	120	1.03	0.076	0.067	20.2	0.78	7431	33980	596	160	D	F	0.0358	335.8	2.68	6341	10.2	265.9	2.12	1190	13.4	97.4	0.78	335	15.0	31.2	0.25
120	130	8677	9.4	8.9	9.5	13.8	15.6	1.47	2.7	7.5	0.26	1.79	60.3	119	1.07	0.078	0.069	19.7	0.77	7254	33980	577	156	D	F	0.0392	339.8	2.60	6130	10.4	275.9	2.11	1365	13.5	115.1	0.88	436	15.1	41.7	0.32
125	135	8054	9.7	9.2	9.7	14.0	15.9	1.51	2.7	7.7	0.26	1.88	59.7	117	1.11	0.079	0.070	19.2	0.76	7085	33980	560	151	D	F	0.0426	343.0	2.53	5902	10.6	284.6	2.10	1523	13.7	132.6	0.98	541	15.2	53.3	0.39
130	140	7494	10.0	9.5	9.8	14.2	16.1	1.54	2.8	7.8	0.26	1.97	59.2	116	1.16	0.081	0.072	18.7	0.75	6925	33980	542	147	D	F	0.0461	345.7	2.46	5671	10.8	292.0	2.08	1665	13.8	149.3	1.06	651	15.3	65.7	0.47
135	145	6989	10.3	9.8	10.0	14.4	16.3	1.57	2.9	7.9	0.26	2.06	58.6	115	1.20	0.083	0.073	18.2	0.74	6772	33980	526	144	D	F	0.0498	347.9	2.39	5436	11.0	298.4	2.05	1786	14.0	165.2	1.14	759	15.4	78.7	0.54
140	150	6534	10.6	10.1	10.1	14.6	16.5	1.61	2.9	8.1	0.26	2.15	58.0	113	1.24	0.085	0.075	17.8	0.73	6627	33980	511	140	D	F	0.0535	349.5	2.32	5204	11.3	303.8	2.02	1887	14.1	179.9	1.20	862	15.5	92.0	0.61
145	155	6120	10.9	10.4	10.2	14.8	16.7	1.64	3.0	8.2	0.26	2.24	57.4	112	1.28	0.086	0.076	17.4	0.72	6488	33980	496	137	D	F	0.0573	350.8	2.26	4980	11.5	308.4	1.98	1970	14.2	193.5	1.24	962	15.7	105.2	0.68
150	160	5745	11.2	10.7	10.4	14.9	16.9	1.67	3.1	8.3	0.27	2.33	56.8	111	1.32	0.088	0.078	16.9	0.71	6356	33980	482	134	D	F	0.0612	351.6	2.19	4760	11.7	312.2	1.95	2034	14.4	205.9	1.28	1052	15.8	118.1	0.74
155	165	5403	11.5	10.9	10.5	15.1	17.1	1.70	3.1	8.4	0.27	2.42	56.2	110	1.36	0.090	0.080	16.6	0.70	6231	33980	469	131	D	F	0.0652	352.1	2.13	4551	11.9	315.3	1.91	2083	14.5	217.2	1.31	1134	15.9	130.6	0.79
160	170	5091	11.8	11.2	10.6	15.2	17.3	1.74	3.2	8.5	0.27	2.51	55.6	109	1.40	0.092	0.081	16.2	0.69	6111	33980	457	128	D	F	0.0692	352.3	2.07	4351	12.2	317.8	1.86	2117	14.7	227.3	1.33	1208	16.0	142.6	0.84
165	175	4806	12.1	11.5	10.7	15.4	17.4	1.77	3.3	8.6	0.27	2.60	55.0	107	1.44	0.094	0.083	15.8	0.68	5997	33980	445	125	D	F	0.0733	352.2	2.01	4160	12.4	319.9	1.82	2090	14.9	233.4	1.33	1270	16.2	154.0	0.88
170	180	4544	12.3	11.7	10.8	15.5	17.6	1.80	3.3	8.7	0.27	2.69	54.4	106	1.48	0.096	0.084	15.5	0.67	5888	33980	434	122	D	F	0.0774	351.8	1.95	3979	12.6	321.4	1.78	2103	15.1	241.6	1.34	1326	16.3	164.7	0.91
175	185	4303	12.6	12.0	10.9	15.7	17.7	1.83	3.4	8.7	0.28	2.79	53.8	105	1.52	0.097	0.086	15.2	0.66	5784	33980	423	120	D	F	0.0816	351.2	1.89	3808	12.8	322.6	1.74	2107	15.2	248.8	1.34	1371	16.4	174.6	0.94
180	190	4082	12.9	12.3	11.0	15.8	17.9	1.86	3.5	8.8	0.28	2.88	53.3	104	1.57	0.099	0.088	14.8	0.65	5685	33980	412	118	D	F	0.0859	350.5	1.84	3641	13.1	323.4	1.70	2099	15.4	255.2	1.34	1405	16.6	183.9	0.97

Table A28. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 11 m Initial Density = 800 stems/ha																																								
5	15	799	2.0	1.9	2.1	2.3	2.4	0.74	1.8	0.2	0.88	0.43	0.3	127	3.54	1.511	1.478	0.2	0.00	121	735	9	3	V	F	0.0004	0.3	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	796	3.8	3.5	3.1	3.5	3.5	0.88	2.6	0.6	0.81	0.63	0.9	101	3.54	1.026	1.000	0.5	0.01	197	735	17	5	V	F	0.0019	1.5	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	792	5.3	5.0	4.1	4.6	4.7	1.03	3.2	1.1	0.75	0.87	1.8	96	3.55	0.779	0.759	0.8	0.02	290	735	25	7	A	F	0.0052	4.1	0.17	32	9.2	0.4	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	787	6.7	6.3	5.1	5.6	5.8	1.18	3.8	1.6	0.69	1.14	2.8	94	3.56	0.634	0.617	1.1	0.03	392	735	34	9	A	F	0.0102	8.0	0.27	193	9.4	3.4	0.11	6	12.9	0.2	0.01	0	0.0	0.0	0.00
25	35	781	8.0	7.5	6.1	6.6	6.8	1.31	4.2	2.2	0.64	1.42	3.9	94	3.58	0.541	0.525	1.4	0.04	499	735	42	11	A	F	0.0172	13.4	0.39	364	9.9	8.5	0.25	37	13.3	1.7	0.05	8	14.8	0.4	0.01
30	40	773	9.1	8.6	6.9	7.6	7.8	1.44	4.6	2.9	0.60	1.71	5.1	93	3.60	0.476	0.462	1.7	0.05	609	735	49	13	A	F	0.0257	19.9	0.50	483	10.5	15.0	0.38	99	13.7	5.5	0.14	33	15.2	2.0	0.05
35	45	765	10.2	9.6	7.8	8.4	8.7	1.55	4.8	3.5	0.57	2.01	6.2	93	3.62	0.429	0.416	2.0	0.06	719	735	56	15	A	F	0.0357	27.3	0.61	560	11.1	22.5	0.50	176	14.1	11.6	0.26	78	15.6	5.6	0.13
40	50	756	11.2	10.6	8.6	9.2	9.5	1.66	5.1	4.1	0.55	2.31	7.4	93	3.64	0.393	0.382	2.2	0.08	826	735	63	17	A	F	0.0468	35.4	0.71	607	11.8	30.7	0.62	253	14.6	19.4	0.39	136	15.9	11.2	0.23
45	55	745	12.1	11.4	9.3	10.0	10.3	1.76	5.3	4.7	0.52	2.60	8.5	93	3.66	0.367	0.356	2.5	0.09	930	735	69	19	A	F	0.0589	43.9	0.80	634	12.5	39.3	0.72	320	15.0	28.1	0.51	196	16.3	18.4	0.34
50	60	735	12.9	12.3	10.0	10.7	11.0	1.86	5.4	5.2	0.50	2.89	9.6	92	3.69	0.345	0.335	2.7	0.10	1030	735	74	21	A	F	0.0718	52.8	0.89	651	13.1	48.2	0.81	377	15.5	37.4	0.63	253	16.7	26.7	0.45
55	65	723	13.7	13.0	10.6	11.3	11.7	1.95	5.6	5.7	0.49	3.17	10.7	92	3.72	0.328	0.319	2.9	0.11	1125	735	79	23	A	F	0.0853	61.7	0.96	658	13.8	57.1	0.88	421	15.9	46.9	0.73	303	17.0	35.7	0.55
60	70	712	14.4	13.8	11.2	11.9	12.3	2.03	5.7	6.1	0.47	3.45	11.7	91	3.75	0.314	0.305	3.1	0.13	1214	735	84	25	A	F	0.0993	70.7	1.02	661	14.4	66.1	0.95	457	16.4	56.5	0.81	347	17.4	45.1	0.65
65	75	700	15.2	14.4	11.7	12.5	12.8	2.11	5.8	6.6	0.46	3.73	12.6	91	3.78	0.302	0.295	3.2	0.14	1299	735	88	26	A	F	0.1137	79.6	1.07	659	15.0	75.0	1.01	484	16.8	65.9	0.88	382	17.8	54.4	0.73
70	80	687	15.8	15.1	12.3	13.0	13.4	2.19	5.9	7.0	0.45	3.99	13.5	90	3.82	0.293	0.286	3.4	0.15	1378	735	91	27	A	F	0.1282	88.1	1.11	654	15.6	83.5	1.05	503	17.2	74.9	0.94	411	18.2	63.7	0.80
75	85	675	16.4	15.7	12.7	13.5	13.8	2.26	6.0	7.3	0.44	4.26	14.3	90	3.85	0.285	0.278	3.5	0.16	1453	735	95	29	A	F	0.1430	96.5	1.14	648	16.1	91.9	1.09	517	17.7	83.7	0.99	434	18.6	72.7	0.86
80	90	663	17.0	16.3	13.2	13.9	14.3	2.33	6.1	7.7	0.44	4.52	15.1	89	3.88	0.278	0.272	3.7	0.17	1522	735	98	30	A	F	0.1578	104.6	1.17	641	16.7	100.0	1.12	527	18.1	92.2	1.03	452	18.9	81.5	0.91
85	95	650	17.6	16.9	13.6	14.4	14.7	2.39	6.2	8.0	0.43	4.77	15.8	88	3.92	0.273	0.267	3.8	0.18	1587	735	100	31	B	F	0.1728	112.3	1.19	631	17.2	107.6	1.14	532	18.5	100.1	1.06	465	19.3	89.9	0.95
90	100	638	18.2	17.4	14.0	14.8	15.1	2.45	6.3	8.3	0.43	5.02	16.5	88	3.96	0.268	0.262	3.9	0.18	1647	735	103	32	B	F	0.1876	119.7	1.20	622	17.7	115.0	1.15	536	18.9	107.8	1.08	475	19.7	97.9	0.98
95	105	626	18.7	17.9	14.4	15.1	15.5	2.51	6.3	8.5	0.42	5.26	17.2	87	4.00	0.264	0.258	4.0	0.19	1703	735	105	33	B	F	0.2024	126.7	1.21	613	18.2	122.0	1.17	537	19.3	115.1	1.10	482	20.0	105.5	1.01
100	110	614	19.2	18.4	14.8	15.5	15.8	2.57	6.4	8.8	0.42	5.50	17.8	87	4.04	0.261	0.255	4.1	0.20	1755	735	106	34	B	F	0.2171	133.3	1.22	603	18.6	128.6	1.17	536	19.7	121.9	1.11	487	20.4	112.8	1.03
105	115	602	19.7	18.9	15.1	15.8	16.1	2.63	6.5	9.0	0.41	5.73	18.3	86	4.08	0.258	0.252	4.1	0.21	1803	735	108	35	B	F	0.2317	139.5	1.22	592	19.1	134.7	1.18	533	20.1	128.2	1.12	489	20.7	119.5	1.04
110	120	590	20.1	19.4	15.4	16.1	16.4	2.68	6.5	9.2	0.41	5.96	18.8	85	4.12	0.256	0.250	4.2	0.21	1849	735	109	35	B	F	0.2461	145.2	1.21	582	19.5	140.5	1.18	529	20.5	134.1	1.12	489	21.1	125.7	1.05
115	125	579	20.6	19.8	15.7	16.4	16.7	2.73	6.6	9.4	0.41	6.19	19.3	85	4.16	0.254	0.248	4.3	0.22	1891	735	111	36	B	F	0.2604	150.8	1.21	572	20.0	146.0	1.17	525	20.9	139.8	1.12	489	21.4	131.8	1.06
120	130	568	21.0	20.2	16.0	16.7	17.0	2.78	6.6	9.5	0.41	6.41	19.7	84	4.20	0.252	0.247	4.3	0.22	1930	735	112	36	B	F	0.2745	155.9	1.20	562	20.4	151.2	1.17	520	21.2	145.1	1.12	487	21.8	137.3	1.06
125	135	557	21.5	20.7	16.2	16.9	17.3	2.83	6.7	9.7	0.40	6.63	20.2	83	4.24	0.251	0.246	4.3	0.23	1967	735	113	37	B	F	0.2885	160.7	1.19	552	20.8	155.9	1.16	514	21.6	149.9	1.11	484	22.1	142.5	1.06
130	140	547	21.9	21.1	16.5	17.2	17.5	2.87	6.8	9.8	0.40	6.84	20.6	83	4.28	0.249	0.244	4.4	0.23	2001	735	113	37	B	F	0.3022	165.3	1.18	542	21.2	160.5	1.15	508	21.9	154.6	1.11	481	22.4	147.4	1.06
135	145	537	22.3	21.4	16.7	17.4	17.7	2.92	6.8	10.0	0.40	7.06	20.9	82	4.32	0.248	0.244	4.4	0.24	2033	735	114	38	B	F	0.3156	169.5	1.17	533	21.6	164.7	1.14	502	22.3	158.9	1.10	477	22.7	152.0	1.05
140	150	527	22.7	21.8	16.9	17.6	17.9	2.96	6.9	10.1	0.40	7.26	21.3	81	4.36	0.248	0.243	4.5	0.24	2063	735	115	38	B	F	0.3290	173.4	1.16	523	21.9	168.5	1.13	496	22.6	162.8	1.09	473	23.1	156.2	1.04
145	155	518	23.0	22.2	17.2	17.8	18.1	3.00	6.9	10.2	0.40	7.47	21.6	81	4.39	0.247	0.242	4.5	0.24	2092	735	115	39	B	F	0.3421	177.2	1.15	515	22.3	172.3	1.11	490	22.9	166.7	1.08	469	23.4	160.3	1.04
150	160	509	23.4	22.6	17.4	18.0	18.3	3.04	6.9	10.3	0.40	7.67	21.9	80	4.43	0.246	0.242	4.5	0.25	2119	735	116	39	B	F	0.3548	180.6	1.13	506	22.7	175.8	1.10	483	23.2	170.1	1.07	464	23.7	164.0	1.03
155	165	500	23.8	22.9	17.6	18.2	18.5	3.08	7.0	10.4	0.40	7.87	22.2	79	4.47	0.246	0.242	4.5	0.25	2145	735	116	39	B	F	0.3674	183.7	1.12	498	23.0	178.9	1.09	477	23.5	173.3	1.05	459	24.0	167.3	1.02
160	170	492	24.1	23.3	17.7	18.4	18.7	3.12	7.0	10.4	0.40	8.07	22.5	79	4.51	0.246	0.241	4.6	0.25	2169	735	117	40	B	F	0.3799	186.9	1.10	490	23.3	182.0	1.07	471	23.9	176.5	1.04	454	24.3	170.7	1.01
165	175	484	24.4	23.6	17.9	18.5	18.9	3.16	7.1	10.5	0.40	8.26	22.7	78	4.55	0.245	0.241	4.6	0.26	2192	735	117	40	B	F	0.3919	189.7	1.09	482	23.7	184.8	1.06	464	24.2	179.2	1.03	449	24.6	173.7	0.99
170	180	476	24.8	23.9	18.1	18.7	19.0	3.20	7.1	10.5	0.40	8.45	22.9	77	4.58	0.245	0.241	4.6	0.26	2214	735	117	40	B	F	0.4038	192.2	1.07	474	24.0	187.3	1.04	458	24.5	181.8	1.01	444	24.8	176.4	0.98
175	185	469	25.1	24.2	18.2	18.8	19.2	3.23	7.1	10.6	0.40	8.64	23.2	77	4.62	0.245	0.241	4.6	0.26	2235	735	117	41	B	F	0.4154	194.8	1.06	467	24.3	189.9	1.03	452	24.8	184.4	1.00	439	25.1	179.2	0.97
180	190	461	25.4	24.5	18.4	19.0	19.3	3.27	7.2	10.6	0.40	8.83	23.4	76	4.66	0.245	0.241	4.6	0.26	2256	735	117	41	B	F	0.4267	196.7	1.04	460	24.6	191.8	1.01	446	25.0	186.3	0.98	434	25.4	181.3	0.96
SI = 11 m Initial Density = 1000 stems/ha																																								
5	15	998	1.9	1.8	2.1	2.3	2.4	0.73	1.8	0.3	0.87	0.42	0.3	133	3.17	1.353	1.323	0.2	0.00	149	890	10	4	V	F	0.0003	0.3	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	994	3.6	3.4	3.1	3.5	3.5	0.87	2.5	0.6	0.80	0.60	1.0	105	3.17	0.919	0.895	0.5	0.01	236	890	20	6	A	F	0.0017	1.7	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	987	5.1	4.7	4.1	4.6	4.7	1.01	3.1	1.1	0.73	0.82	2.0	99	3.18	0.699	0.680	0.9	0.02	341	890	30	8	A	F	0.0046	4.5	0.18	25	9.1	0.3	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	978	6.4	6.0	5.1	5.6	5.8	1.14	3.6	1.7	0.67	1.07	3.1	97	3.20	0.570	0.553	1.2	0.03	457	890	39	10	A	F	0.0091	8.9	0.30	194	9.2	3.2	0.11	4	12.7	0.1	0.00	0	0.0	0.0	0.00
25	35	967	7.6	7.2	6.0	6.6	6.8	1.27	4.0	2.3	0.63	1.33	4.4	96	3.22	0.487	0.472	1.6	0.04	578	890	49	13	A	F	0.0153	14.8	0.43	401	9.6	8.8	0.25	29	13.2	1.3	0.04	5	14.7	0.2	0.01
30	40	955	8.7	8.2	6.9	7.5	7.8	1.39	4.3	2.9	0.59	1.61	5.7	96	3.24	0.429	0.416	1.9	0.06	701	890	57	15	A	F	0.0230	22.0	0.56	556	10.2	16.0	0.40	89	13.5	4.8	0.12	25	15.1	1.5	0.04
35	45	940	9.7	9.2	7.7	8.4	8.7	1.50	4.6	3.6	0.55	1.88	7.0	96	3.26	0.388	0.376	2.2	0.07	822	890	65	18	A	F	0.0321	30.2	0.68	655	10.8	24.3	0.55	173	13.9	11.0	0.25	68	15.4	4.7	0.11
40	50	925	10.7	10.1	8.5	9.2	9.5	1.61	4.8	4.2	0.53	2.16	8.3	95	3.29	0.356	0.345	2.5	0.09	940	890	73	20	A	F	0.0423	39.1	0.79	718	11.4	33.3	0.67	262	14.3	19.2	0.39	128	15.7	10.2	0.21
45	55	908	11.6	11.0	9.2	10.0	10.3	1.71	5.0	4.7	0.51	2.43	9.5	95	3.32	0.333	0.323	2.8	0.10	1054	890	79	22	A	F	0.0534	48.5	0.89	754	12.1	42.8	0.78	343	14.7	28.7	0.53	195	16.0	17.6	0.32
50	60	890	12.4	11.8	9.9	10.7	11.0	1.80	5.2	5.3	0.49	2.71	10.7	94	3.35	0.314	0.305	3.0	0.12	1161	890	85	24	A	F	0.0654	58.2	0.98	773	12.7	52.6	0.88	413	15.1	39.0	0.65	261	16.4	26.4	0.44
55	65	872	13.2	12.5	10.5	11.3	11.7	1.89	5.3	5.8	0.47	2.98	11.9	94	3.39	0.299	0.290	3.3	0.13	1263	890	91	26	A	F	0.0779	67.9	1.05	782	13.3	62.4	0.97	469	15.6	49.5	0.77	322	16.7	36.1	0.56
60	70	853	13.9	13.2	11.1	11.9	12.3	1.97	5.4	6.2	0.46	3.24	12.9	93	3.42	0.287	0.279	3.5	0.14	1358	890	95	28	A	F	0.0910	77.6	1.12	783	13.9	72.1	1.04	513	16.0	60.0	0.86	374	17.1	46.2	0.66
65	75	834	14.6	13.9	11.7	12.5	12.8	2.05	5.5	6.7	0.45	3.51	13.9	93	3.46	0.278	0.270	3.6	0.15	1447	890	100	29	A	F	0.1044	87.1	1.17	778	14.5	81.6	1.09	546	16.4	70.3	0.94	418	17.5	56.4	0.76
70	80	815	15.2	14.6	12.2	13.0	13.4	2.12	5.6	7.1	0.44	3.77	14.9	92	3.50	0.270	0.262	3.8	0.16	1529	890	103	31	B	F	0.1182	96.3	1.21	770	15.1	90.9	1.14	571	16.8	80.3	1.01	454	17.8	66.6	0.84
75	85	795	15.9	15.2	12.7	13.5	13.8	2.20	5.7	7.4	0.43	4.02	15.7	92	3.55	0.263	0.256	3.9	0.17	1605	890	106	32	B	F	0.1322	105.1	1.24	759	15.6	99.7	1.18	587	17.3	89.7	1.06	481	18.2	76.4	0.90
80	90	776	16.5	15.8	13.1	13.9	14.3	2.26	5.8	7.8	0.42	4.27	16.5	91	3.59	0.258	0.251	4.1	0.18	1674	890	109	33	B	F	0.1464	113.6	1.27	746	16.2	108.2	1.21	598	17.7	98.8	1.10	503	18.5	85.9	0.96
85	95	757	17.0	16.3	13.5	14.3	14.7	2.33	5.9	8.1	0.42	4.52	17.3	90	3.63	0.253	0.247	4.2	0.19	1739	890	112	34	B	F	0.1606	121.6	1.29	732	16.7	116.2	1.23	604	18.1	107.3	1.13	518	18.9	94.9	1.00
90	100	739	17.6	16.9	13.9	14.7	15.1	2.39	6.0	8.4	0.41	4.76	18.0	90	3.68	0.250	0.243	4.3	0.20	1798	890	114	35	B	F	0.1750	129.3	1.30	718	17.2	124.0	1.25	607	18.5	115.5	1.16	530	19.3	103.6	1.04
95	105	721	18.1	17.4	14.3	15.1	15.5	2.45	6.1	8.6	0.41	5.00	18.6	89	3.72	0.247	0.241	4.4	0.21	1852	890	116	36	B	F	0.1893	136.5	1.31	704	17.7	131.2	1.25	606	18.9	123.1	1.18	538	19.6	111.8	1.07
100	110	703	18.6	17.9	14.7	15.4	15.8	2.51	6.2	8.8	0.40	5.24	19.2	88	3.77	0.244	0.238	4.4	0.22	1902	890	117	37	B	F	0.2036	143.1	1.31	688	18.1	137.8	1.26	603	19.3	130.1	1.19	542	20.0	119.3	1.09
105	115	686	19.1	18.4	15.0	15.8	16.1	2.57	6.2	9.1	0.40	5.47	19.7	87	3.82	0.242	0.236	4.5	0.22	1947	890	119	38	B	F	0.2179	149.5	1.30	674	18.6	144.2	1.26	599	19.7	136.7	1.19	543	20.3	126.3	1.10
110	120	669	19.6	18.8	15.3	16.1	16.4	2.62	6.3	9.3	0.40	5.70	20.2	87	3.87	0.241	0.235	4.6	0.23	1989	890	120	38	B	F	0.2321	155.3	1.30	658	19.1	150.0	1.25	592	20.0	142.8	1.19	543	20.7	132.9	1.11
115	125	653	20.1	19.3	15.6	16.4	16.7	2.67	6.4	9.5	0.40	5.92	20.7	86	3.91	0.239	0.234	4.6	0.23	2028	890	120	39	B	F	0.2461	160.7	1.29	644	19.5	155.5	1.25	585	20.4	148.5	1.19	541	21.0	139.1	1.12
120	130	638	20.5	19.7	15.9	16.6	17.0	2.72	6.4	9.6	0.40	6.15	21.1	85	3.96	0.238	0.233	4.7	0.24	2063	890	121	39	B	F	0.2600	165.9	1.28	630	19.9	160.7	1.24	578	20.8	153.9	1.19	538	21.4	144.9	1.12
125	135	623	21.0	20.2	16.1	16.9	17.3	2.77	6.5	9.8	0.39	6.37	21.5	85	4.01	0.237	0.232	4.7	0.24	2096	890	122	40	B	F	0.2738	170.6	1.27	616	20.3	165.4	1.23	570	21.1	158.8	1.18	533	21.7	150.1	1.12
130	140	609	21.4	20.6	16.4	17.1	17.5	2.82	6.5	9.9	0.39	6.58	21.9	84	4.05	0.237	0.232	4.7	0.25	2127	890	122	40	B	F	0.2875	175.1	1.25	603	20.7	169.9	1.22	562	21.5	163.4	1.17	529	22.0	155.2	1.11
135	145	595	21.8	21.0	16.6	17.3	17.7	2.86	6.6	10.0	0.39	6.80	22.2	83	4.10	0.236	0.231	4.8	0.25	2155	890	123	40	B	F	0.3010	179.1	1.24	590	21.1	173.9	1.20	553	21.8	167.5	1.16	523	22.3	159.7	1.10
140	150	582	22.2	21.4	16.8	17.6	17.9	2.91	6.7	10.1	0.39	7.01	22.5	82	4.15	0.236	0.231	4.8	0.25	2181	890	123	41	B	F	0.3143	182.9	1.22	578	21.5	177.7	1.19	544	22.2	171.4	1.15	517	22.7	163.9	1.10
145	155	569	22.6	21.7	17.1	17.8	18.1	2.95	6.7	10.2	0.39	7.21	22.8	82	4.19	0.236	0.231	4.8	0.26	2206	890	123	41	B	F	0.3274	186.3	1.21	565	21.9	181.1	1.17	535	22.5	174.9	1.13	510	23.0	167.7	1.08
150	160	557	22.9	22.1	17.3	18.0	18.3	2.99	6.8	10.3	0.39	7.42	23.0	81	4.24	0.236	0.231	4.8	0.26	2229	890	123	41	B	F	0.3402	189.5	1.19	554	22.2	184.3	1.15	526	22.8	178.2	1.12	503	23.3	171.3	1.07
155	165	545	23.3	22.5	17.5	18.2	18.5	3.03	6.8	10.4	0.39	7.62	23.3	80	4.28	0.236	0.231	4.8	0.26	2250	890	123	42	B	F	0.3528	192.3	1.17	542	22.6	187.1	1.14	517	23.2	181.1	1.10	496	23.6	174.5	1.06
160	170	534	23.7	22.8	17.6	18.3	18.7	3.07	6.9	10.5	0.39	7.82	23.5	80	4.33	0.236	0.232	4.8	0.27	2271	890	123	42	B	F	0.3654	195.1	1.15	531	22.9	189.9	1.12	509	23.5	184.0	1.09	490	23.9	177.6	1.05
165	175	524	24.0	23.2	17.8	18.5	18.9	3.11	7.0	10.6	0.39	8.02	23.7	79	4.37	0.236	0.232	4.8	0.27	2290	890	124	42	B	F	0.3775	197.8	1.13	522	23.2	192.7	1.10	501	23.8	186.8	1.07	483	24.2	180.6	1.03
170	180	514	24.4	23.5	18.0	18.7	19.0	3.15	7.0	10.7	0.39	8.21	24.0	78	4.41	0.236	0.232	4.9	0.27	2308	890	124	42	B	F	0.3895	200.2	1.11	512	23.6	195.0	1.09	493	24.1	189.2	1.05	477	24.5	183.3	1.02
175	185	504	24.7	23.8	18.1	18.8	19.2	3.19	7.0	10.7	0.39	8.40	24.1	77	4.45	0.237	0.232	4.9	0.27	2326	890	123	42	B	F	0.4012	202.2	1.10	502	23.9	197.1	1.07	485	24.4	191.3	1.04	470	24.7	185.6	1.01
180	190	495	25.0	24.2	18.3	19.0	19.3	3.22	7.0	10.7	0.39	8.59	24.3	77	4.49	0.237	0.233	4.9	0.27	2343	890	123	43	B	F	0.4127	204.3	1.08	493	24.2	199.1	1.05	477	24.7	193.4	1.02	464	25.0	187.9	0.99

Table A29. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 11 m Initial Density = 1600 stems/ha																																								
5	15	1595	1.7	1.6	2.1	2.3	2.4	0.72	1.7	0.3	0.85	0.40	0.4	147	2.50	1.073	1.046	0.3	0.00	229	1318	15	6	A	F	0.0003	0.4	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	1583	3.2	3.0	3.1	3.4	3.5	0.83	2.3	0.7	0.77	0.55	1.3	113	2.51	0.730	0.709	0.7	0.01	345	1318	28	9	A	F	0.0013	2.1	0.11	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	1565	4.6	4.3	4.0	4.5	4.7	0.96	2.9	1.2	0.70	0.74	2.6	106	2.53	0.557	0.540	1.2	0.03	483	1318	41	12	A	F	0.0036	5.6	0.23	12	8.9	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	1541	5.8	5.4	5.0	5.6	5.8	1.08	3.3	1.8	0.64	0.95	4.0	103	2.55	0.456	0.441	1.7	0.04	632	1318	54	15	A	F	0.0072	11.1	0.38	176	8.9	2.6	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	1512	6.9	6.5	5.9	6.6	6.8	1.19	3.6	2.4	0.59	1.17	5.6	102	2.57	0.391	0.377	2.1	0.06	785	1318	67	18	A	F	0.0122	18.4	0.53	463	9.2	8.8	0.25	14	12.9	0.6	0.02	2	14.1	0.1	0.00
30	40	1479	7.9	7.4	6.8	7.5	7.8	1.30	3.9	3.1	0.55	1.40	7.2	101	2.60	0.346	0.334	2.6	0.08	939	1318	78	21	A	F	0.0184	27.2	0.69	713	9.7	17.5	0.44	61	13.2	3.1	0.08	12	14.8	0.7	0.02
35	45	1442	8.8	8.3	7.6	8.4	8.7	1.41	4.1	3.7	0.52	1.64	8.9	101	2.63	0.314	0.303	3.0	0.09	1088	1318	88	24	A	F	0.0257	37.1	0.83	887	10.2	27.7	0.62	148	13.5	8.8	0.20	43	15.1	2.8	0.06
40	50	1402	9.7	9.2	8.3	9.2	9.5	1.51	4.3	4.3	0.49	1.88	10.4	100	2.67	0.291	0.281	3.3	0.11	1230	1318	97	26	A	F	0.0342	47.9	0.97	996	10.7	38.8	0.78	258	13.9	17.5	0.35	99	15.3	7.3	0.15
45	55	1361	10.6	10.0	9.1	9.9	10.3	1.60	4.5	4.9	0.47	2.13	11.9	100	2.71	0.273	0.263	3.7	0.13	1363	1318	105	29	A	F	0.0434	59.1	1.08	1060	11.3	50.4	0.92	370	14.2	28.3	0.52	175	15.6	14.5	0.27
50	60	1318	11.4	10.8	9.7	10.6	11.0	1.69	4.6	5.4	0.45	2.37	13.3	99	2.75	0.259	0.250	4.0	0.15	1487	1318	112	31	B	F	0.0536	70.6	1.19	1091	11.9	62.1	1.04	473	14.6	40.4	0.68	258	15.9	23.8	0.40
55	65	1274	12.1	11.5	10.3	11.3	11.7	1.77	4.8	5.9	0.44	2.61	14.7	98	2.80	0.249	0.240	4.2	0.16	1600	1318	118	33	B	F	0.0643	81.9	1.27	1101	12.4	73.7	1.14	559	14.9	53.1	0.82	340	16.2	34.7	0.54
60	70	1230	12.8	12.2	10.9	11.9	12.3	1.85	4.9	6.4	0.43	2.86	15.9	98	2.85	0.240	0.232	4.4	0.18	1703	1318	123	35	B	F	0.0756	93.0	1.34	1096	13.0	85.1	1.22	627	15.3	65.8	0.95	414	16.5	46.3	0.67
65	75	1187	13.5	12.9	11.5	12.4	12.8	1.93	5.0	6.8	0.42	3.10	17.0	97	2.90	0.234	0.226	4.6	0.19	1796	1318	128	37	B	F	0.0874	103.8	1.39	1082	13.6	96.1	1.29	680	15.7	78.2	1.05	479	16.8	58.4	0.78
70	80	1145	14.1	13.5	12.0	12.9	13.4	2.00	5.1	7.2	0.41	3.34	18.0	96	2.96	0.229	0.221	4.8	0.20	1880	1318	131	38	B	F	0.0997	114.1	1.43	1062	14.1	106.7	1.34	718	16.1	90.2	1.13	532	17.2	70.5	0.89
75	85	1103	14.8	14.1	12.5	13.4	13.8	2.07	5.2	7.6	0.40	3.58	18.9	95	3.01	0.225	0.218	4.9	0.21	1955	1318	134	39	B	F	0.1122	123.8	1.46	1037	14.6	116.5	1.38	743	16.5	101.4	1.20	574	17.5	82.1	0.97
80	90	1063	15.4	14.7	12.9	13.9	14.3	2.14	5.3	7.9	0.40	3.82	19.7	95	3.07	0.221	0.215	5.0	0.22	2022	1318	136	41	B	F	0.1251	133.0	1.48	1010	15.2	125.9	1.41	758	16.9	111.9	1.25	607	17.8	93.4	1.04
85	95	1024	15.9	15.3	13.3	14.3	14.7	2.21	5.4	8.2	0.39	4.05	20.4	94	3.13	0.219	0.212	5.1	0.23	2081	1318	138	41	B	F	0.1383	141.6	1.50	981	15.7	134.6	1.42	765	17.3	121.6	1.29	630	18.2	103.9	1.10
90	100	987	16.5	15.8	13.7	14.7	15.1	2.27	5.5	8.5	0.39	4.29	21.1	93	3.18	0.217	0.211	5.2	0.24	2134	1318	139	42	B	F	0.1516	149.6	1.50	951	16.2	142.7	1.43	767	17.7	130.7	1.31	646	18.5	113.8	1.14
95	105	951	17.0	16.3	14.1	15.0	15.5	2.33	5.6	8.7	0.39	4.52	21.7	92	3.24	0.216	0.209	5.3	0.25	2180	1318	140	43	B	F	0.1650	156.9	1.50	922	16.7	150.1	1.44	763	18.0	138.9	1.33	655	18.9	122.9	1.18
100	110	918	17.6	16.8	14.4	15.4	15.8	2.39	5.7	9.0	0.38	4.75	22.3	91	3.30	0.215	0.209	5.3	0.25	2222	1318	141	44	B	F	0.1785	163.9	1.50	894	17.1	157.2	1.43	756	18.4	146.6	1.34	661	19.2	131.6	1.20
105	115	885	18.1	17.3	14.8	15.7	16.1	2.45	5.8	9.2	0.38	4.98	22.7	90	3.36	0.214	0.208	5.3	0.26	2258	1318	142	44	B	F	0.1921	170.0	1.48	865	17.6	163.4	1.43	746	18.8	153.5	1.34	661	19.6	139.2	1.21
110	120	855	18.6	17.8	15.1	16.0	16.4	2.50	5.9	9.4	0.38	5.20	23.1	90	3.42	0.214	0.208	5.4	0.26	2290	1318	142	44	B	F	0.2056	175.8	1.47	838	18.1	169.4	1.42	734	19.2	159.9	1.34	659	19.9	146.5	1.23
115	125	826	19.0	18.3	15.4	16.3	16.7	2.56	5.9	9.6	0.38	5.43	23.5	89	3.48	0.214	0.208	5.4	0.27	2319	1318	142	45	B	F	0.2192	181.1	1.45	811	18.5	174.7	1.40	721	19.6	165.7	1.33	654	20.2	153.0	1.23
120	130	798	19.5	18.7	15.6	16.5	17.0	2.61	6.0	9.7	0.38	5.65	23.8	88	3.54	0.214	0.208	5.4	0.27	2344	1318	142	45	B	F	0.2327	185.7	1.43	786	18.9	179.5	1.39	707	19.9	170.9	1.32	647	20.6	158.9	1.23
125	135	773	20.0	19.2	15.9	16.8	17.3	2.66	6.1	9.9	0.38	5.87	24.2	87	3.60	0.214	0.208	5.4	0.28	2367	1318	142	45	B	F	0.2462	190.3	1.41	762	19.4	184.1	1.37	693	20.3	175.9	1.31	639	20.9	164.5	1.22
130	140	748	20.4	19.6	16.2	17.0	17.5	2.71	6.2	10.0	0.38	6.09	24.4	86	3.66	0.215	0.209	5.4	0.28	2387	1318	141	46	B	F	0.2596	194.2	1.39	739	19.8	188.1	1.35	677	20.7	180.1	1.29	629	21.3	169.3	1.21
135	145	725	20.8	20.0	16.4	17.3	17.7	2.76	6.2	10.1	0.38	6.30	24.7	85	3.71	0.215	0.210	5.4	0.28	2405	1318	141	46	B	F	0.2728	197.8	1.37	717	20.2	191.8	1.33	663	21.0	184.1	1.27	620	21.6	173.9	1.20
140	150	703	21.2	20.4	16.6	17.5	17.9	2.80	6.3	10.2	0.38	6.51	24.9	85	3.77	0.216	0.210	5.4	0.28	2422	1318	140	46	B	F	0.2861	201.1	1.34	696	20.6	195.1	1.30	648	21.4	187.6	1.25	609	21.9	178.0	1.19
145	155	683	21.6	20.8	16.8	17.7	18.1	2.85	6.4	10.3	0.38	6.72	25.1	84	3.83	0.216	0.211	5.4	0.29	2437	1318	140	46	B	F	0.2990	204.2	1.32	677	21.0	198.3	1.28	634	21.7	191.0	1.24	599	22.2	181.9	1.18
150	160	664	22.0	21.2	17.0	17.9	18.3	2.89	6.4	10.4	0.38	6.93	25.3	83	3.88	0.217	0.212	5.4	0.29	2450	1318	139	46	B	F	0.3119	207.1	1.30	659	21.3	201.2	1.26	620	22.0	194.0	1.22	588	22.5	185.3	1.16
155	165	645	22.4	21.6	17.2	18.1	18.5	2.94	6.5	10.5	0.38	7.14	25.5	82	3.94	0.218	0.213	5.4	0.29	2463	1318	138	46	B	F	0.3245	209.3	1.27	640	21.7	203.5	1.24	606	22.4	196.5	1.19	577	22.8	188.2	1.14
160	170	628	22.8	22.0	17.4	18.2	18.7	2.98	6.5	10.6	0.38	7.34	25.6	81	3.99	0.219	0.214	5.4	0.29	2475	1318	138	46	B	F	0.3369	211.6	1.25	624	22.1	205.8	1.21	593	22.7	199.0	1.17	567	23.1	191.2	1.13
165	175	612	23.2	22.3	17.6	18.4	18.9	3.02	6.6	10.6	0.38	7.54	25.8	81	4.04	0.219	0.214	5.4	0.29	2486	1318	137	46	B	F	0.3493	213.8	1.22	608	22.4	208.0	1.19	580	23.0	201.3	1.15	556	23.5	193.7	1.11
170	180	597	23.5	22.7	17.7	18.6	19.0	3.06	6.6	10.7	0.38	7.74	25.9	80	4.09	0.220	0.215	5.3	0.29	2496	1318	137	46	B	F	0.3613	215.7	1.20	594	22.8	210.0	1.17	568	23.3	203.4	1.13	546	23.8	196.2	1.09
175	185	582	23.9	23.0	17.9	18.7	19.2	3.10	6.7	10.7	0.38	7.93	26.0	79	4.15	0.221	0.216	5.3	0.29	2506	1318	136	46	B	F	0.3732	217.2	1.18	579	23.1	211.5	1.15	556	23.6	205.0	1.11	536	24.0	198.2	1.07
180	190	568	24.2	23.4	18.1	18.9	19.3	3.14	6.8	10.8	0.38	8.13	26.1	78	4.20	0.222	0.217	5.3	0.30	2515	1318	135	46	B	F	0.3849	218.6	1.15	566	23.4	213.0	1.12	544	24.0	206.5	1.09	526	24.3	200.0	1.05
SI = 11 m Initial Density = 2000 stems/ha																																								
5	15	1992	1.6	1.5	2.1	2.3	2.4	0.71	1.6	0.3	0.84	0.40	0.4	154	2.24	0.961	0.936	0.3	0.00	281	1580	18	8	A	F	0.0002	0.4	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	1974	3.1	2.9	3.0	3.4	3.5	0.82	2.2	0.7	0.76	0.53	1.5	117	2.25	0.655	0.635	0.8	0.01	414	1580	33	11	A	F	0.0012	2.3	0.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	1947	4.3	4.1	4.0	4.5	4.7	0.93	2.7	1.2	0.68	0.70	2.9	109	2.27	0.501	0.484	1.4	0.03	569	1580	48	14	A	F	0.0032	6.2	0.25	7	8.8	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	1910	5.5	5.1	4.9	5.6	5.8	1.05	3.1	1.8	0.62	0.90	4.5	106	2.29	0.410	0.396	1.9	0.05	737	1580	63	17	A	F	0.0064	12.2	0.41	157	8.8	2.2	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	1866	6.6	6.2	5.8	6.6	6.8	1.16	3.5	2.5	0.57	1.10	6.3	105	2.31	0.352	0.340	2.5	0.07	908	1580	77	21	A	F	0.0108	20.2	0.58	476	9.1	8.5	0.25	8	12.8	0.3	0.01	0	0.0	0.0	0.00
30	40	1816	7.5	7.1	6.7	7.5	7.8	1.26	3.7	3.1	0.53	1.32	8.1	104	2.35	0.313	0.301	2.9	0.09	1078	1580	90	24	A	F	0.0165	29.9	0.76	783	9.4	17.9	0.45	46	13.1	2.3	0.06	7	14.7	0.4	0.01
35	45	1761	8.5	8.0	7.5	8.4	8.7	1.36	3.9	3.8	0.50	1.54	9.9	103	2.38	0.285	0.274	3.4	0.11	1241	1580	102	27	A	F	0.0232	40.8	0.92	1005	9.9	29.0	0.65	128	13.4	7.4	0.17	31	14.9	2.0	0.04
40	50	1703	9.3	8.8	8.3	9.2	9.5	1.46	4.1	4.4	0.48	1.77	11.6	103	2.42	0.264	0.255	3.8	0.13	1394	1580	112	30	B	F	0.0308	52.5	1.06	1148	10.4	41.2	0.83	243	13.7	15.9	0.32	82	15.2	5.9	0.12
45	55	1642	10.1	9.6	9.0	9.9	10.3	1.55	4.3	4.9	0.46	2.00	13.2	102	2.47	0.249	0.240	4.2	0.15	1536	1580	120	33	B	F	0.0393	64.6	1.18	1231	11.0	53.9	0.99	368	14.0	27.1	0.50	156	15.4	12.5	0.23
50	60	1580	10.9	10.3	9.6	10.6	11.0	1.64	4.4	5.5	0.44	2.23	14.7	101	2.52	0.237	0.229	4.5	0.16	1666	1580	128	35	B	F	0.0487	76.9	1.29	1272	11.5	66.6	1.12	488	14.3	40.0	0.67	244	15.7	21.7	0.36
55	65	1518	11.6	11.1	10.2	11.2	11.7	1.72	4.5	6.0	0.43	2.46	16.1	101	2.57	0.228	0.220	4.7	0.18	1784	1580	134	37	B	F	0.0586	89.0	1.38	1284	12.1	79.2	1.23	592	14.7	53.8	0.83	336	16.0	32.9	0.51
60	70	1456	12.3	11.7	10.8	11.8	12.3	1.80	4.7	6.4	0.41	2.69	17.4	100	2.62	0.222	0.214	5.0	0.20	1889	1580	139	39	B	F	0.0692	100.8	1.45	1276	12.6	91.4	1.31	676	15.0	67.6	0.97	422	16.3	45.2	0.65
65	75	1396	13.0	12.4	11.4	12.4	12.8	1.87	4.8	6.8	0.40	2.92	18.5	99	2.68	0.216	0.209	5.1	0.21	1983	1580	143	41	B	F	0.0804	112.2	1.50	1256	13.1	103.1	1.38	740	15.4	81.1	1.09	498	16.6	58.1	0.78
70	80	1337	13.6	13.0	11.9	12.9	13.4	1.95	4.9	7.2	0.40	3.16	19.6	98	2.73	0.212	0.205	5.3	0.22	2066	1580	146	42	B	F	0.0919	122.9	1.54	1227	13.7	114.2	1.44	787	15.8	94.0	1.18	561	16.9	71.0	0.89
75	85	1281	14.3	13.6	12.3	13.4	13.8	2.02	5.0	7.6	0.39	3.39	20.5	97	2.79	0.209	0.202	5.4	0.23	2138	1580	149	43	B	F	0.1039	133.1	1.57	1194	14.2	124.6	1.47	819	16.1	106.2	1.26	613	17.2	83.7	0.99
80	90	1227	14.9	14.2	12.8	13.8	14.3	2.09	5.1	7.9	0.39	3.62	21.3	96	2.85	0.207	0.200	5.5	0.24	2202	1580	151	44	B	F	0.1161	142.5	1.59	1157	14.7	134.3	1.50	838	16.5	117.5	1.31	652	17.5	95.7	1.07
85	95	1175	15.5	14.8	13.2	14.2	14.7	2.15	5.2	8.2	0.38	3.85	22.0	95	2.92	0.205	0.198	5.6	0.25	2257	1580	152	45	B	F	0.1287	151.2	1.60	1119	15.2	143.3	1.52	847	16.9	127.8	1.35	680	17.9	107.0	1.13
90	100	1126	16.0	15.3	13.6	14.6	15.1	2.21	5.3	8.5	0.38	4.08	22.7	94	2.98	0.204	0.197	5.7	0.26	2305	1580	153	46	B	F	0.1415	159.3	1.60	1080	15.7	151.6	1.52	848	17.3	137.3	1.38	700	18.2	117.6	1.18
95	105	1080	16.6	15.9	14.0	15.0	15.5	2.28	5.4	8.8	0.38	4.31	23.2	94	3.04	0.203	0.197	5.7	0.27	2346	1580	153	47	B	F	0.1544	166.8	1.60	1042	16.2	159.3	1.52	843	17.7	146.1	1.40	712	18.5	127.5	1.22
100	110	1036	17.1	16.4	14.3	15.3	15.8	2.34	5.5	9.0	0.37	4.53	23.7	93	3.11	0.203	0.196	5.7	0.27	2382	1580	153	47	B	F	0.1676	173.6	1.58	1005	16.7	166.2	1.52	834	18.1	154.0	1.41	718	18.9	136.4	1.24
105	115	994	17.6	16.9	14.6	15.7	16.1	2.39	5.6	9.2	0.37	4.76	24.2	92	3.17	0.203	0.196	5.8	0.28	2413	1580	153	47	B	F	0.1808	179.7	1.57	968	17.2	172.5	1.51	821	18.4	161.0	1.41	718	19.2	144.5	1.26
110	120	956	18.1	17.4	14.9	16.0	16.4	2.45	5.7	9.4	0.37	4.98	24.6	91	3.23	0.203	0.197	5.8	0.28	2440	1580	153	48	B	F	0.1940	185.5	1.55	934	17.6	178.4	1.49	807	18.8	167.6	1.40	716	19.6	152.2	1.27
115	125	919	18.6	17.8	15.2	16.2	16.7	2.50	5.7	9.6	0.37	5.21	24.9	90	3.30	0.203	0.197	5.8	0.29	2462	1580	153	48	B	F	0.2073	190.5	1.53	901	18.1	183.6	1.47	790	19.2	173.4	1.39	710	19.9	158.9	1.28
120	130	885	19.0	18.3	15.5	16.5	17.0	2.56	5.8	9.8	0.37	5.43	25.2	89	3.36	0.204	0.198	5.8	0.29	2482	1580	152	48	B	F	0.2206	195.2	1.51	870	18.5	188.4	1.45	773	19.6	178.7	1.38	702	20.2	165.1	1.27
125	135	853	19.5	18.7	15.8	16.8	17.3	2.61	5.9	9.9	0.37	5.64	25.5	88	3.42	0.204	0.198	5.8	0.29	2499	1580	151	48	B	F	0.2338	199.4	1.48	840	18.9	192.7	1.43	756	19.9	183.6	1.36	692	20.6	170.7	1.27
130	140	823	19.9	19.2	16.0	17.0	17.5	2.66	6.0	10.0	0.37	5.86	25.7	87	3.49	0.205	0.199	5.8	0.30	2514	1580	151	48	B	F	0.2470	203.3	1.46	812	19.4	196.7	1.41	738	20.3	187.9	1.35	681	20.9	175.8	1.26
135	145	794	20.4	19.6	16.3	17.2	17.7	2.71	6.1	10.2	0.37	6.08	25.9	87	3.55	0.206	0.200	5.7	0.30	2527	1580	150	48	B	F	0.2601	206.5	1.43	784	19.8	200.0	1.38	719	20.6	191.5	1.32	668	21.2	180.1	1.25
140	150	768	20.8	20.0	16.5	17.4	17.9	2.75	6.1	10.3	0.37	6.29	26.1	86	3.61	0.207	0.201	5.7	0.30	2539	1580	149	48	B	F	0.2730	209.7	1.40	760	20.2	203.3	1.36	702	21.0	195.2	1.31	656	21.6	184.4	1.23
145	155	743	21.2	20.4	16.7	17.6	18.1	2.80	6.2	10.4	0.37	6.50	26.2	85	3.67	0.208	0.202	5.7	0.30	2549	1580	148	48	B	F	0.2860	212.5	1.37	736	20.6	206.1	1.33	685	21.3	198.3	1.28	643	21.9	188.0	1.22
150	160	720	21.6	20.8	16.9	17.8	18.3	2.85	6.3	10.5	0.37	6.71	26.4	84	3.73	0.209	0.203	5.7	0.30	2558	1580	147	48	B	F	0.2988	215.1	1.35	714	20.9	208.8	1.31	668	21.7	201.1	1.26	631	22.2	191.5	1.20
155	165	698	22.0	21.2	17.1	18.0	18.5	2.89	6.3	10.5	0.37	6.91	26.5	83	3.79	0.210	0.204	5.7	0.30	2566	1580	146	48	B	F	0.3113	217.3	1.32	692	21.3	211.1	1.28	652	22.0	203.6	1.24	618	22.5	194.5	1.18
160	170	677	22.4	21.6	17.3	18.2	18.7	2.93	6.4	10.6	0.37	7.11	26.6	82	3.84	0.211	0.206	5.6	0.30	2573	1580	145	48	B	F	0.3238	219.2	1.29	672	21.7	213.0	1.26	636	22.3	205.8	1.21	605	22.8	197.0	1.16
165	175	658	22.8	21.9	17.4	18.4	18.9	2.97	6.5	10.7	0.37	7.32	26.7	82	3.90	0.212	0.207	5.6	0.30	2580	1580	144	48	B	F	0.3360	221.1	1.27	654	22.0	215.0	1.23	621	22.7	207.9	1.19	593	23.1	199.6	1.14
170	180	640	23.1	22.3	17.6	18.5	19.0	3.01	6.5	10.7	0.37	7.51	26.9	81	3.95	0.213	0.208	5.6	0.31	2586	1580	143	48	B	F	0.3480	222.7	1.24	636	22.4	216.7	1.21	606	23.0	209.7	1.17	581	23.4	201.8	1.12
175	185	623	23.5	22.6	17.8	18.7	19.2	3.05	6.6	10.8	0.37	7.71	27.0	80	4.01	0.214	0.209	5.6	0.31	2592	1580	142	48	B	F	0.3599	224.2	1.21	620	22.7	218.3	1.18	593	23.3	211.4	1.15	570	23.7	203.9	1.10
180	190	607	23.8	23.0	17.9	18.8	19.3	3.09	6.6	10.8	0.38	7.91	27.0	79	4.06	0.216	0.210	5.5	0.31	2598	1580	142	48	B	F	0.3715	225.5	1.19	604	23.1	219.6	1.16	580	23.6	212.9	1.12	559	24.0	205.7	1.09

Table A30. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 11 m Initial Density = 3000 stems/ha																																								
5	15	2985	1.4	1.3	2.0	2.3	2.4	0.70	1.6	0.3	0.82	0.39	0.5	168	1.83	0.788	0.765	0.4	0.01	408	2186	24	12	A	F	0.0002	0.5	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	2948	2.8	2.6	3.0	3.4	3.5	0.79	2.1	0.7	0.73	0.50	1.8	125	1.84	0.538	0.520	1.1	0.02	576	2186	44	15	A	F	0.0009	2.7	0.14	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	2891	3.9	3.7	3.9	4.5	4.7	0.90	2.5	1.3	0.65	0.65	3.5	116	1.86	0.412	0.397	1.8	0.04	770	2186	64	19	A	F	0.0025	7.3	0.30	2	8.6	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	2817	5.0	4.7	4.8	5.6	5.8	1.00	2.9	1.9	0.59	0.81	5.5	112	1.88	0.339	0.326	2.5	0.06	976	2186	84	23	A	F	0.0051	14.5	0.49	110	8.6	1.4	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	2729	6.0	5.6	5.7	6.5	6.8	1.10	3.2	2.6	0.54	0.99	7.7	110	1.91	0.293	0.281	3.1	0.08	1183	2186	101	27	A	F	0.0088	24.0	0.69	464	8.8	7.5	0.22	3	12.5	0.1	0.00	0	0.0	0.0	0.00
30	40	2630	6.9	6.5	6.6	7.5	7.8	1.20	3.4	3.2	0.50	1.18	9.9	109	1.95	0.261	0.251	3.8	0.11	1384	2186	117	31	B	F	0.0134	35.3	0.89	882	9.1	17.8	0.45	23	12.9	1.1	0.03	2	14.3	0.1	0.00
35	45	2524	7.8	7.3	7.4	8.3	8.7	1.29	3.6	3.8	0.47	1.37	12.0	108	1.99	0.239	0.229	4.3	0.13	1573	2186	131	35	B	F	0.0190	47.9	1.07	1220	9.5	30.7	0.69	86	13.1	4.8	0.11	14	14.7	0.9	0.02
40	50	2412	8.6	8.1	8.1	9.1	9.5	1.38	3.7	4.4	0.45	1.58	14.0	107	2.04	0.223	0.214	4.8	0.16	1746	2186	142	38	B	F	0.0255	61.4	1.24	1447	9.9	44.9	0.91	196	13.4	12.2	0.25	49	14.9	3.4	0.07
45	55	2299	9.4	8.9	8.8	9.9	10.3	1.47	3.9	5.0	0.43	1.78	15.8	106	2.09	0.212	0.203	5.2	0.18	1903	2186	152	41	B	F	0.0328	75.3	1.38	1584	10.4	59.7	1.09	337	13.6	23.3	0.43	113	15.1	8.6	0.16
50	60	2186	10.1	9.6	9.4	10.5	11.0	1.55	4.0	5.5	0.41	1.99	17.5	105	2.14	0.203	0.194	5.5	0.20	2043	2186	160	44	B	F	0.0408	89.1	1.50	1652	10.9	74.5	1.25	486	13.9	37.2	0.62	201	15.4	16.8	0.28
55	65	2075	10.8	10.3	10.0	11.2	11.7	1.63	4.1	6.0	0.40	2.20	19.1	104	2.20	0.196	0.188	5.8	0.22	2165	2186	166	46	B	F	0.0495	102.7	1.59	1672	11.4	88.9	1.38	624	14.2	52.5	0.81	304	15.6	27.9	0.43
60	70	1967	11.5	10.9	10.6	11.8	12.3	1.70	4.3	6.5	0.39	2.42	20.4	103	2.25	0.192	0.184	6.0	0.24	2271	2186	171	48	B	F	0.0588	115.6	1.66	1660	11.9	102.7	1.48	741	14.6	68.4	0.98	409	15.9	40.8	0.59
65	75	1864	12.2	11.6	11.1	12.3	12.8	1.78	4.4	6.9	0.38	2.63	21.6	102	2.32	0.188	0.180	6.2	0.25	2362	2186	174	49	B	F	0.0687	128.0	1.72	1628	12.4	115.8	1.55	835	14.9	84.1	1.13	508	16.1	54.9	0.74
70	80	1765	12.8	12.2	11.6	12.8	13.4	1.85	4.5	7.3	0.38	2.85	22.7	101	2.38	0.186	0.178	6.3	0.26	2439	2186	177	50	C	F	0.0790	139.5	1.75	1582	13.0	128.0	1.61	905	15.2	99.1	1.25	594	16.4	69.4	0.87
75	85	1672	13.4	12.8	12.1	13.3	13.8	1.92	4.6	7.6	0.37	3.07	23.6	100	2.45	0.184	0.177	6.4	0.27	2504	2186	178	51	C	F	0.0898	150.2	1.78	1529	13.5	139.3	1.65	953	15.6	113.0	1.34	665	16.7	83.7	0.99
80	90	1585	14.0	13.4	12.5	13.7	14.3	1.99	4.7	8.0	0.37	3.29	24.4	99	2.51	0.183	0.176	6.5	0.28	2559	2186	179	52	C	F	0.1011	160.2	1.79	1472	14.0	149.7	1.67	984	15.9	126.0	1.41	721	17.0	97.5	1.09
85	95	1503	14.6	13.9	13.0	14.2	14.7	2.05	4.8	8.3	0.36	3.51	25.1	98	2.58	0.182	0.175	6.6	0.29	2604	2186	180	53	C	F	0.1126	169.2	1.79	1413	14.5	159.2	1.68	1000	16.3	137.8	1.46	764	17.3	110.5	1.17
90	100	1426	15.1	14.5	13.3	14.5	15.1	2.12	4.9	8.5	0.36	3.72	25.7	97	2.65	0.182	0.175	6.6	0.30	2641	2186	179	53	C	F	0.1244	177.4	1.78	1353	15.0	167.8	1.69	1003	16.7	148.3	1.49	793	17.7	122.5	1.23
95	105	1355	15.7	15.0	13.7	14.9	15.5	2.18	5.0	8.8	0.36	3.94	26.2	96	2.72	0.182	0.176	6.6	0.30	2671	2186	179	53	C	F	0.1365	184.9	1.77	1296	15.4	175.7	1.68	999	17.0	158.0	1.51	812	18.0	133.6	1.28
100	110	1288	16.2	15.5	14.0	15.2	15.8	2.24	5.1	9.0	0.36	4.16	26.6	95	2.79	0.183	0.176	6.6	0.31	2695	2186	178	54	C	F	0.1488	191.6	1.75	1240	15.9	182.6	1.67	987	17.4	166.5	1.52	822	18.3	143.6	1.31
105	115	1227	16.7	16.0	14.4	15.6	16.1	2.30	5.2	9.2	0.36	4.38	27.0	94	2.85	0.183	0.177	6.6	0.31	2714	2186	177	54	C	F	0.1611	197.7	1.73	1187	16.4	189.1	1.65	971	17.8	174.2	1.52	826	18.6	152.9	1.33
110	120	1169	17.2	16.5	14.7	15.9	16.4	2.35	5.3	9.4	0.35	4.60	27.2	93	2.92	0.184	0.178	6.6	0.32	2729	2186	175	54	C	F	0.1737	203.0	1.70	1136	16.8	194.7	1.63	951	18.1	180.9	1.51	823	19.0	161.0	1.35
115	125	1116	17.7	17.0	15.0	16.1	16.7	2.41	5.4	9.6	0.35	4.81	27.5	92	2.99	0.185	0.179	6.5	0.32	2740	2186	174	54	C	F	0.1863	207.9	1.67	1089	17.3	199.8	1.60	929	18.5	187.0	1.50	816	19.3	168.4	1.35
120	130	1067	18.2	17.5	15.2	16.4	17.0	2.46	5.5	9.8	0.35	5.03	27.7	91	3.06	0.186	0.180	6.5	0.32	2749	2186	172	54	C	F	0.1990	212.3	1.64	1044	17.7	204.4	1.58	906	18.9	192.4	1.48	806	19.6	175.0	1.35
125	135	1021	18.7	17.9	15.5	16.7	17.3	2.51	5.6	9.9	0.35	5.24	27.9	90	3.13	0.188	0.181	6.5	0.32	2755	2186	171	54	C	F	0.2117	216.1	1.61	1002	18.1	208.4	1.55	882	19.2	197.1	1.46	794	19.9	180.9	1.34
130	140	979	19.1	18.4	15.7	16.9	17.5	2.56	5.7	10.1	0.35	5.46	28.1	90	3.20	0.189	0.183	6.4	0.32	2760	2186	169	53	C	F	0.2243	219.6	1.57	962	18.6	212.1	1.52	858	19.6	201.4	1.44	780	20.3	186.3	1.33
135	145	940	19.5	18.8	16.0	17.1	17.7	2.61	5.7	10.2	0.36	5.67	28.2	89	3.26	0.190	0.184	6.4	0.33	2762	2186	167	53	C	F	0.2370	222.8	1.54	926	19.0	215.4	1.49	835	19.9	205.3	1.42	765	20.6	191.0	1.32
140	150	903	20.0	19.2	16.2	17.3	17.9	2.66	5.8	10.3	0.36	5.88	28.3	88	3.33	0.192	0.186	6.3	0.33	2764	2186	166	53	C	F	0.2496	225.4	1.51	891	19.4	218.1	1.46	811	20.3	208.5	1.39	749	20.9	195.2	1.31
145	155	869	20.4	19.6	16.4	17.6	18.1	2.71	5.9	10.4	0.36	6.08	28.4	87	3.39	0.193	0.187	6.3	0.33	2765	2186	164	53	C	F	0.2621	227.8	1.47	859	19.8	220.6	1.43	788	20.6	211.4	1.37	733	21.2	198.9	1.29
150	160	837	20.8	20.0	16.6	17.7	18.3	2.75	6.0	10.5	0.36	6.29	28.4	86	3.46	0.195	0.189	6.2	0.33	2765	2186	162	53	C	F	0.2746	229.8	1.44	828	20.2	222.8	1.40	766	21.0	213.9	1.34	716	21.5	202.1	1.27
155	165	808	21.2	20.4	16.8	17.9	18.5	2.80	6.0	10.6	0.36	6.49	28.5	85	3.52	0.196	0.190	6.2	0.33	2764	2186	161	52	C	F	0.2868	231.7	1.41	800	20.6	224.9	1.37	745	21.3	216.3	1.31	700	21.9	205.2	1.25
160	170	780	21.6	20.8	17.0	18.1	18.7	2.84	6.1	10.6	0.36	6.69	28.5	84	3.58	0.198	0.192	6.1	0.33	2763	2186	159	52	C	F	0.2990	233.2	1.38	773	20.9	226.4	1.34	724	21.7	218.1	1.29	684	22.2	207.7	1.22
165	175	755	22.0	21.2	17.2	18.3	18.9	2.89	6.2	10.7	0.36	6.89	28.6	83	3.64	0.199	0.193	6.1	0.33	2762	2186	158	52	C	F	0.3110	234.8	1.34	749	21.3	228.1	1.31	705	22.0	220.1	1.26	668	22.5	210.1	1.20
170	180	731	22.3	21.5	17.3	18.4	19.0	2.93	6.2	10.8	0.36	7.09	28.6	82	3.70	0.201	0.195	6.1	0.33	2761	2186	156	52	C	F	0.3228	236.0	1.31	726	21.6	229.4	1.28	686	22.3	221.6	1.23	653	22.8	212.2	1.18
175	185	708	22.7	21.9	17.5	18.6	19.2	2.97	6.3	10.8	0.36	7.29	28.6	82	3.76	0.202	0.196	6.0	0.33	2760	2186	155	52	C	F	0.3346	236.9	1.28	703	22.0	230.4	1.25	668	22.6	222.7	1.21	638	23.1	213.8	1.16
180	190	687	23.1	22.2	17.6	18.7	19.3	3.01	6.4	10.8	0.37	7.48	28.7	81	3.82	0.204	0.198	6.0	0.33	2759	2186	153	51	C	F	0.3461	237.8	1.25	683	22.3	231.4	1.22	651	22.9	223.9	1.18	623	23.4	215.4	1.14
SI = 11 m Initial Density = 4000 stems/ha																																								
5	15	3975	1.3	1.2	2.0	2.3	2.4	0.69	1.5	0.4	0.80	0.38	0.5	180	1.59	0.684	0.663	0.5	0.01	531	2745	30	15	A	F	0.0001	0.5	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	3916	2.6	2.4	2.9	3.4	3.5	0.78	2.0	0.8	0.71	0.48	2.0	131	1.60	0.468	0.451	1.3	0.02	730	2745	54	19	A	F	0.0008	3.0	0.15	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	3825	3.7	3.4	3.9	4.5	4.7	0.87	2.4	1.3	0.63	0.61	4.1	120	1.62	0.359	0.345	2.1	0.04	956	2745	79	23	A	F	0.0021	8.2	0.33	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	3708	4.7	4.4	4.8	5.5	5.8	0.97	2.7	1.9	0.57	0.76	6.4	116	1.64	0.297	0.284	3.0	0.07	1192	2745	101	28	A	F	0.0044	16.3	0.55	74	8.5	0.9	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	3569	5.6	5.3	5.6	6.5	6.8	1.06	2.9	2.6	0.52	0.92	8.8	114	1.67	0.257	0.246	3.7	0.10	1427	2745	122	33	B	F	0.0075	26.9	0.78	421	8.6	6.3	0.18	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	40	3415	6.5	6.1	6.5	7.4	7.8	1.15	3.1	3.2	0.48	1.09	11.3	113	1.71	0.230	0.220	4.4	0.13	1651	2745	140	37	B	F	0.0116	39.5	1.00	914	8.9	16.9	0.43	12	12.8	0.6	0.02	0	0.0	0.0	0.00
35	45	3250	7.3	6.9	7.2	8.3	8.7	1.24	3.3	3.9	0.45	1.27	13.7	112	1.75	0.212	0.202	5.1	0.16	1858	2745	156	41	B	F	0.0165	53.5	1.20	1352	9.2	30.9	0.69	56	13.0	3.0	0.07	7	14.5	0.4	0.01
40	50	3081	8.1	7.7	8.0	9.1	9.5	1.33	3.5	4.4	0.43	1.45	15.9	110	1.80	0.198	0.189	5.6	0.18	2045	2745	168	45	B	F	0.0222	68.3	1.38	1666	9.6	46.7	0.94	152	13.2	9.1	0.18	29	14.8	1.9	0.04
45	55	2911	8.8	8.4	8.6	9.8	10.3	1.41	3.6	5.0	0.41	1.64	17.9	109	1.85	0.189	0.180	6.0	0.21	2210	2745	179	48	B	F	0.0286	83.3	1.53	1859	10.1	63.1	1.16	293	13.4	19.5	0.36	79	15.0	5.8	0.11
50	60	2745	9.6	9.1	9.3	10.5	11.0	1.49	3.7	5.5	0.40	1.84	19.7	108	1.91	0.182	0.174	6.4	0.23	2354	2745	187	50	C	F	0.0358	98.3	1.65	1960	10.5	79.5	1.33	456	13.7	33.4	0.56	161	15.2	13.0	0.22
55	65	2583	10.3	9.7	9.9	11.1	11.7	1.57	3.9	6.0	0.38	2.04	21.4	107	1.97	0.177	0.169	6.7	0.25	2477	2745	193	53	C	F	0.0437	112.8	1.75	1994	11.0	95.3	1.48	618	14.0	49.5	0.77	264	15.4	23.2	0.36
60	70	2429	10.9	10.4	10.4	11.7	12.3	1.64	4.0	6.5	0.38	2.24	22.8	106	2.03	0.173	0.165	6.9	0.27	2580	2745	197	54	C	F	0.0521	126.6	1.82	1983	11.5	110.4	1.59	763	14.3	66.7	0.96	378	15.6	36.0	0.52
65	75	2283	11.6	11.0	11.0	12.3	12.8	1.71	4.1	6.9	0.37	2.44	24.0	105	2.09	0.171	0.163	7.1	0.28	2667	2745	200	56	C	F	0.0612	139.7	1.87	1942	12.0	124.5	1.67	882	14.6	83.9	1.13	491	15.9	50.5	0.68
70	80	2146	12.2	11.6	11.4	12.8	13.4	1.78	4.2	7.3	0.36	2.65	25.1	104	2.16	0.169	0.162	7.2	0.29	2737	2745	202	57	C	F	0.0707	151.7	1.91	1883	12.5	137.6	1.73	974	14.9	100.5	1.26	594	16.1	65.9	0.83
75	85	2018	12.8	12.2	11.9	13.2	13.8	1.85	4.3	7.6	0.36	2.85	26.0	103	2.23	0.168	0.161	7.3	0.31	2795	2745	203	58	C	F	0.0807	162.9	1.93	1814	13.0	149.6	1.77	1041	15.2	116.1	1.37	683	16.4	81.4	0.96
80	90	1899	13.4	12.8	12.3	13.7	14.3	1.92	4.5	7.9	0.35	3.06	26.7	102	2.29	0.168	0.161	7.3	0.31	2840	2745	202	58	C	F	0.0911	173.0	1.93	1739	13.4	160.5	1.79	1084	15.6	130.4	1.46	755	16.7	96.4	1.08
85	95	1789	14.0	13.3	12.7	14.1	14.7	1.98	4.6	8.2	0.35	3.27	27.4	101	2.36	0.168	0.161	7.3	0.32	2876	2745	202	59	C	F	0.1019	182.3	1.93	1662	13.9	170.4	1.80	1109	15.9	143.4	1.52	810	17.0	110.6	1.17
90	100	1687	14.5	13.9	13.1	14.5	15.1	2.05	4.7	8.5	0.35	3.48	27.9	99	2.43	0.168	0.161	7.3	0.33	2904	2745	201	59	C	F	0.1130	190.6	1.91	1585	14.4	179.3	1.80	1118	16.3	155.0	1.56	851	17.3	123.9	1.24
95	105	1593	15.1	14.4	13.5	14.8	15.5	2.11	4.8	8.8	0.35	3.70	28.4	98	2.51	0.169	0.162	7.3	0.33	2924	2745	199	59	C	F	0.1244	198.1	1.89	1511	14.9	187.3	1.79	1116	16.6	165.4	1.58	878	17.6	136.1	1.30
100	110	1506	15.6	14.9	13.8	15.2	15.8	2.17	4.9	9.0	0.35	3.91	28.7	97	2.58	0.170	0.163	7.3	0.34	2938	2745	197	59	C	F	0.1359	204.7	1.87	1440	15.4	194.4	1.77	1104	17.0	174.5	1.59	894	17.9	147.1	1.34
105	115	1426	16.1	15.4	14.1	15.5	16.1	2.23	5.0	9.2	0.34	4.12	29.0	96	2.65	0.171	0.164	7.2	0.34	2948	2745	195	59	C	F	0.1477	210.6	1.84	1372	15.8	200.8	1.75	1086	17.3	182.6	1.59	901	18.2	157.1	1.37
110	120	1353	16.6	15.9	14.4	15.8	16.4	2.28	5.1	9.4	0.34	4.33	29.3	95	2.72	0.172	0.165	7.2	0.34	2954	2745	193	59	C	F	0.1596	216.0	1.81	1308	16.3	206.5	1.73	1065	17.7	189.9	1.59	901	18.5	166.0	1.39
115	125	1285	17.1	16.4	14.7	16.1	16.7	2.34	5.2	9.6	0.34	4.54	29.5	94	2.79	0.174	0.167	7.1	0.35	2956	2745	191	58	C	F	0.1717	220.6	1.77	1248	16.7	211.4	1.70	1039	18.0	196.2	1.57	895	18.9	174.0	1.40
120	130	1223	17.6	16.9	15.0	16.3	17.0	2.39	5.3	9.8	0.34	4.75	29.6	93	2.86	0.175	0.168	7.1	0.35	2956	2745	188	58	C	F	0.1838	224.8	1.73	1192	17.1	215.9	1.67	1012	18.4	201.8	1.56	886	19.2	181.2	1.40
125	135	1166	18.0	17.3	15.3	16.6	17.3	2.44	5.3	9.9	0.35	4.96	29.8	92	2.93	0.176	0.170	7.0	0.35	2954	2745	186	58	C	F	0.1960	228.5	1.70	1140	17.6	219.9	1.63	985	18.8	206.8	1.54	873	19.5	187.5	1.39
130	140	1113	18.5	17.8	15.5	16.8	17.5	2.50	5.4	10.1	0.35	5.17	29.9	91	3.00	0.178	0.171	6.9	0.35	2950	2745	184	57	C	F	0.2082	231.7	1.66	1091	18.0	223.4	1.60	956	19.1	211.0	1.51	857	19.8	193.1	1.38
135	145	1064	18.9	18.2	15.7	17.1	17.7	2.54	5.5	10.2	0.35	5.37	29.9	90	3.07	0.180	0.173	6.9	0.35	2945	2745	181	57	C	F	0.2204	234.5	1.62	1045	18.4	226.4	1.57	928	19.5	214.7	1.49	840	20.1	198.0	1.37
140	150	1019	19.4	18.6	16.0	17.3	17.9	2.59	5.6	10.3	0.35	5.58	30.0	89	3.13	0.181	0.175	6.8	0.35	2939	2745	179	57	C	F	0.2326	237.0	1.58	1003	18.8	229.0	1.53	901	19.8	218.1	1.46	823	20.4	202.5	1.35
145	155	977	19.8	19.0	16.2	17.5	18.1	2.64	5.7	10.4	0.35	5.78	30.0	88	3.20	0.183	0.176	6.7	0.35	2933	2745	177	56	C	F	0.2447	239.1	1.55	963	19.2	231.3	1.50	873	20.1	220.8	1.43	804	20.8	206.3	1.33
150	160	938	20.2	19.4	16.4	17.7	18.3	2.69	5.8	10.5	0.35	5.98	30.0	87	3.27	0.185	0.178	6.7	0.35	2926	2745	174	56	C	F	0.2568	240.9	1.51	926	19.6	233.2	1.46	847	20.5	223.3	1.40	785	21.1	209.6	1.31
155	165	902	20.6	19.8	16.6	17.9	18.5	2.73	5.8	10.6	0.35	6.18	30.0	86	3.33	0.187	0.180	6.6	0.35	2919	2745	172	56	C	F	0.2687	242.4	1.47	892	20.0	235.0	1.43	822	20.8	225.4	1.37	766	21.4	212.5	1.29
160	170	869	21.0	20.2	16.7	18.0	18.7	2.78	5.9	10.6	0.35	6.38	30.0	86	3.39	0.188	0.182	6.6	0.35	2912	2745	170	55	C	F	0.2807	243.9	1.44	860	20.3	236.6	1.40	798	21.1	227.3	1.34	748	21.7	215.2	1.27
165	175	838	21.4	20.6	16.9	18.2	18.9	2.82	6.0	10.7	0.35	6.58	30.0	85	3.45	0.190	0.183	6.5	0.35	2905	2745	168	55	C	F	0.2924	245.0	1.40	830	20.7	237.8	1.36	775	21.5	229.0	1.31	730	22.0	217.6	1.25
170	180	809	21.7	20.9	17.1	18.4	19.0	2.86	6.1	10.8	0.36	6.77	30.0	84	3.52	0.192	0.185	6.4	0.34	2899	2745	166	55	C	F	0.3041	246.0	1.37	802	21.1	238.9	1.33	753	21.8	230.3	1.28	712	22.3	219.5	1.22
175	185	782	22.1	21.3	17.2	18.5	19.2	2.90	6.1	10.8	0.36	6.97	30.0	83	3.58	0.193	0.187	6.4	0.34	2892	2745	165	54	C	F	0.3155	246.7	1.34	776	21.4	239.8	1.30	731	22.1	231.4	1.25	695	22.6	221.2	1.20
180	190	757	22.5	21.7	17.4	18.6	19.3	2.94	6.2	10.9	0.36	7.16	30.0	82	3.63	0.195	0.188	6.3	0.34	2886	2745	163	54	C	F	0.3268	247.4	1.31	752	21.8	240.6	1.27	712	22.4	232.4	1.23	678	22.9	222.8	1.18

Table A31. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	8/6 N	8/6 D	8/6 V/ha	8/6 Mai	13/7 N	13/7 D	13/7 V/ha	13/7 Mai	15/10 N	15/10 D	15/10 V/ha	15/10 Mai
		Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
SI = 11 m Initial Density = 5000 stems/ha																																								
5	15	4965	1.2	1.2	2.0	2.3	2.4	0.69	1.4	0.4	0.79	0.37	0.6	190	1.42	0.613	0.593	0.5	0.01	651	3272	36	19	A	F	0.0001	0.6	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	4881	2.4	2.3	2.9	3.4	3.5	0.77	1.9	0.8	0.70	0.47	2.3	137	1.43	0.420	0.404	1.5	0.02	877	3272	64	23	A	F	0.0007	3.3	0.17	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	4752	3.5	3.3	3.8	4.5	4.7	0.86	2.3	1.4	0.62	0.58	4.5	125	1.45	0.323	0.310	2.4	0.05	1131	3272	92	28	A	F	0.0019	9.0	0.37	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	4586	4.4	4.2	4.7	5.5	5.8	0.95	2.6	2.0	0.55	0.72	7.1	120	1.48	0.267	0.255	3.4	0.08	1393	3272	118	33	B	F	0.0039	17.8	0.60	49	8.4	0.6	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	4391	5.3	5.0	5.6	6.5	6.8	1.03	2.8	2.6	0.51	0.87	9.8	117	1.51	0.232	0.221	4.3	0.11	1651	3272	141	38	B	F	0.0067	29.3	0.85	369	8.5	5.3	0.15	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	40	4177	6.2	5.8	6.4	7.4	7.8	1.12	3.0	3.3	0.47	1.03	12.5	116	1.55	0.209	0.199	5.0	0.14	1893	3272	161	43	B	F	0.0103	42.9	1.08	908	8.7	15.8	0.40	6	12.7	0.3	0.01	0	0.0	0.0	0.00
35	45	3951	7.0	6.6	7.1	8.3	8.7	1.21	3.1	3.9	0.44	1.19	15.1	114	1.59	0.193	0.183	5.7	0.17	2114	3272	178	47	B	F	0.0147	58.0	1.30	1431	9.0	30.5	0.68	37	12.9	2.0	0.04	3	14.4	0.2	0.00
40	50	3721	7.7	7.3	7.8	9.1	9.5	1.29	3.3	4.5	0.42	1.37	17.5	113	1.64	0.181	0.172	6.3	0.20	2309	3272	192	51	C	F	0.0198	73.8	1.49	1826	9.4	47.4	0.96	116	13.1	6.8	0.14	17	14.7	1.1	0.02
45	55	3493	8.5	8.0	8.5	9.8	10.3	1.37	3.4	5.0	0.40	1.54	19.6	112	1.69	0.173	0.164	6.8	0.23	2480	3272	202	54	C	F	0.0257	89.9	1.65	2080	9.8	65.1	1.19	249	13.3	16.1	0.30	56	14.9	4.0	0.07
50	60	3272	9.2	8.7	9.1	10.5	11.0	1.44	3.5	5.5	0.38	1.73	21.6	111	1.75	0.167	0.159	7.1	0.25	2624	3272	210	57	C	F	0.0323	105.7	1.77	2218	10.2	82.8	1.39	416	13.5	29.5	0.50	126	15.0	9.9	0.17
55	65	3060	9.8	9.3	9.7	11.1	11.7	1.52	3.7	6.0	0.37	1.91	23.3	109	1.81	0.163	0.155	7.4	0.27	2746	3272	216	59	C	F	0.0395	121.0	1.87	2270	10.7	99.9	1.55	593	13.8	45.8	0.71	225	15.2	19.1	0.30
60	70	2859	10.5	10.0	10.3	11.7	12.3	1.59	3.8	6.4	0.36	2.11	24.7	108	1.87	0.160	0.152	7.6	0.29	2846	3272	220	60	C	F	0.0474	135.4	1.95	2263	11.2	116.0	1.67	759	14.1	63.8	0.92	341	15.5	31.4	0.45
65	75	2671	11.1	10.6	10.8	12.2	12.8	1.66	3.9	6.9	0.36	2.30	26.0	107	1.93	0.158	0.151	7.8	0.31	2926	3272	222	61	C	F	0.0557	148.9	2.00	2218	11.6	131.0	1.76	901	14.3	82.2	1.10	463	15.7	45.9	0.62
70	80	2497	11.7	11.2	11.3	12.7	13.4	1.73	4.0	7.2	0.35	2.50	27.0	106	2.00	0.157	0.150	7.9	0.32	2990	3272	223	62	C	F	0.0646	161.4	2.03	2149	12.1	144.8	1.82	1014	14.6	100.1	1.26	579	15.9	61.7	0.78
75	85	2335	12.3	11.8	11.7	13.2	13.8	1.80	4.1	7.6	0.35	2.70	27.9	105	2.07	0.157	0.149	8.0	0.33	3040	3272	223	63	C	F	0.0740	172.8	2.04	2066	12.6	157.3	1.86	1098	15.0	116.9	1.38	681	16.2	77.8	0.92
80	90	2186	12.9	12.3	12.2	13.6	14.3	1.87	4.3	7.9	0.34	2.90	28.7	103	2.14	0.157	0.150	8.0	0.34	3078	3272	222	63	C	F	0.0838	183.2	2.05	1975	13.1	168.7	1.88	1155	15.3	132.4	1.48	767	16.5	93.8	1.05
85	95	2049	13.5	12.9	12.6	14.0	14.7	1.93	4.4	8.2	0.34	3.10	29.3	102	2.21	0.157	0.150	8.0	0.35	3105	3272	221	64	C	F	0.0939	192.5	2.04	1883	13.5	178.9	1.89	1190	15.6	146.4	1.55	835	16.7	109.1	1.15
90	100	1924	14.0	13.4	12.9	14.4	15.1	1.99	4.5	8.5	0.34	3.30	29.8	101	2.28	0.158	0.151	8.0	0.35	3124	3272	219	64	C	F	0.1044	200.9	2.02	1792	14.0	188.1	1.89	1207	15.9	159.1	1.60	887	17.0	123.4	1.24
95	105	1809	14.6	13.9	13.3	14.8	15.5	2.05	4.6	8.8	0.34	3.51	30.2	100	2.35	0.159	0.152	7.9	0.36	3136	3272	216	63	C	F	0.1152	208.4	1.99	1703	14.5	196.3	1.88	1208	16.3	170.2	1.63	923	17.3	136.5	1.31
100	110	1704	15.1	14.5	13.6	15.1	15.8	2.11	4.7	9.0	0.34	3.71	30.5	99	2.42	0.160	0.153	7.9	0.36	3142	3272	214	63	C	F	0.1262	215.1	1.96	1618	14.9	203.6	1.86	1199	16.6	180.1	1.64	946	17.6	148.5	1.36
105	115	1607	15.6	15.0	13.9	15.4	16.1	2.17	4.8	9.2	0.34	3.92	30.8	98	2.49	0.162	0.155	7.8	0.36	3144	3272	211	63	C	F	0.1375	220.9	1.93	1537	15.4	209.9	1.83	1182	17.0	188.7	1.65	958	17.9	159.2	1.39
110	120	1519	16.1	15.4	14.2	15.7	16.4	2.23	4.9	9.4	0.34	4.12	31.0	97	2.57	0.163	0.156	7.7	0.37	3142	3272	208	63	C	F	0.1489	226.2	1.89	1462	15.8	215.6	1.80	1159	17.3	196.3	1.64	962	18.2	168.9	1.41
115	125	1438	16.6	15.9	14.5	16.0	16.7	2.28	5.0	9.6	0.34	4.33	31.1	96	2.64	0.165	0.158	7.6	0.37	3136	3272	205	62	C	F	0.1604	230.7	1.85	1391	16.3	220.6	1.77	1132	17.7	202.9	1.63	958	18.5	177.4	1.42
120	130	1364	17.1	16.4	14.8	16.3	17.0	2.34	5.1	9.8	0.34	4.53	31.2	95	2.71	0.166	0.159	7.6	0.37	3129	3272	202	62	C	F	0.1721	234.7	1.81	1325	16.7	225.0	1.74	1103	18.0	208.8	1.61	949	18.8	185.1	1.43
125	135	1296	17.5	16.8	15.1	16.5	17.3	2.39	5.2	9.9	0.34	4.73	31.3	94	2.78	0.168	0.161	7.5	0.37	3120	3272	199	61	C	F	0.1838	238.2	1.77	1263	17.1	228.8	1.70	1072	18.4	213.8	1.59	937	19.1	191.8	1.43
130	140	1234	18.0	17.3	15.3	16.8	17.5	2.44	5.3	10.1	0.34	4.94	31.3	93	2.85	0.170	0.163	7.4	0.37	3110	3272	196	61	C	F	0.1956	241.4	1.73	1206	17.5	232.2	1.66	1041	18.7	218.3	1.56	921	19.5	197.8	1.42
135	145	1176	18.4	17.7	15.5	17.0	17.7	2.49	5.3	10.2	0.34	5.14	31.3	92	2.92	0.172	0.165	7.3	0.37	3098	3272	193	60	C	F	0.2074	243.9	1.69	1152	17.9	235.0	1.63	1009	19.1	222.0	1.54	903	19.8	202.9	1.40
140	150	1123	18.9	18.1	15.7	17.2	17.9	2.54	5.4	10.3	0.34	5.34	31.3	91	2.98	0.173	0.166	7.2	0.37	3086	3272	190	60	C	F	0.2191	246.1	1.65	1103	18.3	237.5	1.59	978	19.4	225.3	1.51	884	20.1	207.5	1.39
145	155	1074	19.3	18.5	16.0	17.4	18.1	2.58	5.5	10.4	0.34	5.54	31.3	90	3.05	0.175	0.168	7.1	0.36	3074	3272	188	59	C	F	0.2309	248.0	1.60	1057	18.7	239.7	1.55	947	19.7	228.0	1.48	864	20.4	211.5	1.37
150	160	1029	19.7	18.9	16.1	17.6	18.3	2.63	5.6	10.5	0.34	5.74	31.3	89	3.12	0.177	0.170	7.1	0.36	3062	3272	185	59	C	F	0.2427	249.7	1.56	1014	19.1	241.5	1.51	918	20.1	230.5	1.44	843	20.7	215.0	1.35
155	165	987	20.1	19.3	16.3	17.8	18.5	2.68	5.7	10.6	0.34	5.93	31.3	88	3.18	0.179	0.172	7.0	0.36	3050	3272	182	59	C	F	0.2543	251.0	1.53	974	19.5	243.0	1.48	889	20.4	232.5	1.41	823	21.0	218.1	1.33
160	170	948	20.5	19.7	16.5	18.0	18.7	2.72	5.8	10.6	0.35	6.13	31.2	87	3.25	0.181	0.174	6.9	0.36	3038	3272	180	58	C	F	0.2659	252.1	1.49	937	19.9	244.3	1.44	862	20.7	234.2	1.38	802	21.3	220.6	1.30
165	175	913	20.9	20.1	16.7	18.1	18.9	2.76	5.8	10.7	0.35	6.32	31.2	86	3.31	0.183	0.176	6.8	0.36	3026	3272	178	58	C	F	0.2773	253.2	1.45	903	20.2	245.6	1.41	836	21.0	235.9	1.35	783	21.6	223.1	1.28
170	180	879	21.2	20.5	16.9	18.3	19.0	2.80	5.9	10.8	0.35	6.51	31.1	85	3.37	0.185	0.177	6.8	0.36	3015	3272	175	57	C	F	0.2887	253.8	1.41	870	20.6	246.3	1.37	811	21.4	237.0	1.32	763	21.9	225.0	1.25
175	185	848	21.6	20.8	17.0	18.4	19.2	2.85	6.0	10.8	0.35	6.71	31.1	84	3.43	0.186	0.179	6.7	0.36	3004	3272	173	57	C	F	0.3000	254.4	1.38	840	21.0	247.0	1.34	787	21.7	238.0	1.29	744	22.2	226.7	1.23
180	190	819	22.0	21.2	17.2	18.6	19.3	2.89	6.0	10.8	0.35	6.89	31.0	83	3.49	0.188	0.181	6.6	0.36	2993	3272	171	56	C	F	0.3111	254.8	1.34	812	21.3	247.6	1.31	764	22.0	238.8	1.26	725	22.5	228.1	1.20
SI = 11 m Initial Density = 6000 stems/ha																																								
5	15	5954	1.2	1.1	1.9	2.3	2.4	0.69	1.4	0.4	0.78	0.37	0.6	199	1.30	0.561	0.542	0.6	0.01	770	3776	41	22	A	F	0.0001	0.6	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	5842	2.3	2.2	2.9	3.4	3.5	0.76	1.8	0.8	0.68	0.46	2.5	141	1.31	0.385	0.369	1.6	0.03	1020	3776	73	27	A	F	0.0006	3.5	0.18	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	5673	3.3	3.1	3.8	4.5	4.7	0.84	2.2	1.4	0.60	0.57	4.9	128	1.33	0.296	0.283	2.7	0.05	1298	3776	104	32	B	F	0.0017	9.6	0.39	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	5455	4.3	4.0	4.6	5.5	5.8	0.93	2.4	2.0	0.54	0.69	7.8	123	1.35	0.246	0.234	3.8	0.09	1583	3776	133	38	B	F	0.0035	19.0	0.64	33	8.3	0.4	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	5201	5.1	4.8	5.5	6.5	6.8	1.01	2.7	2.6	0.49	0.83	10.7	120	1.39	0.214	0.203	4.7	0.12	1859	3776	159	43	B	F	0.0060	31.3	0.91	317	8.4	4.3	0.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	40	4923	5.9	5.6	6.3	7.4	7.8	1.10	2.8	3.3	0.46	0.98	13.6	118	1.43	0.193	0.183	5.6	0.16	2116	3776	181	48	B	F	0.0093	45.8	1.16	878	8.6	14.5	0.37	3	12.6	0.1	0.00	0	0.0	0.0	0.00
35	45	4633	6.7	6.3	7.0	8.2	8.7	1.18	3.0	3.9	0.43	1.13	16.4	117	1.47	0.178	0.169	6.3	0.19	2347	3776	199	53	C	F	0.0133	61.8	1.39	1472	8.9	29.6	0.66	24	12.8	1.2	0.03	2	14.1	0.1	0.00
40	50	4340	7.4	7.0	7.7	9.0	9.5	1.26	3.1	4.5	0.41	1.30	18.9	115	1.52	0.168	0.160	6.9	0.22	2549	3776	213	56	C	F	0.0181	78.5	1.58	1944	9.2	47.4	0.96	88	13.0	5.1	0.10	11	14.6	0.7	0.01
45	55	4053	8.2	7.7	8.4	9.8	10.3	1.33	3.3	5.0	0.39	1.47	21.2	114	1.57	0.161	0.153	7.4	0.25	2722	3776	224	59	C	F	0.0235	95.3	1.75	2259	9.6	66.2	1.21	209	13.2	13.2	0.24	39	14.8	2.8	0.05
50	60	3776	8.8	8.4	9.0	10.4	11.0	1.41	3.4	5.5	0.37	1.64	23.2	112	1.63	0.156	0.148	7.8	0.27	2867	3776	232	62	C	F	0.0296	111.9	1.88	2436	10.0	85.0	1.43	374	13.4	25.8	0.43	99	14.9	7.6	0.13
55	65	3513	9.5	9.0	9.6	11.1	11.7	1.48	3.5	6.0	0.36	1.82	24.9	111	1.69	0.153	0.145	8.1	0.30	2985	3776	237	64	C	F	0.0364	127.7	1.98	2510	10.5	103.1	1.60	559	13.6	42.0	0.65	190	15.1	15.8	0.24
60	70	3267	10.1	9.6	10.1	11.6	12.3	1.55	3.6	6.4	0.35	2.00	26.4	110	1.75	0.150	0.143	8.3	0.31	3080	3776	240	65	C	F	0.0437	142.7	2.05	2511	10.9	120.2	1.73	741	13.9	60.4	0.87	304	15.3	27.2	0.39
65	75	3038	10.8	10.2	10.7	12.2	12.8	1.62	3.8	6.8	0.35	2.19	27.7	109	1.81	0.149	0.141	8.4	0.33	3155	3776	242	67	C	F	0.0515	156.6	2.10	2465	11.3	136.0	1.82	902	14.2	79.6	1.07	430	15.5	41.4	0.56
70	80	2827	11.4	10.8	11.1	12.7	13.4	1.69	3.9	7.2	0.34	2.38	28.7	107	1.88	0.148	0.141	8.5	0.34	3213	3776	242	67	C	F	0.0599	169.4	2.13	2388	11.8	150.4	1.89	1034	14.5	98.5	1.24	555	15.8	57.3	0.72
75	85	2633	12.0	11.4	11.6	13.1	13.8	1.76	4.0	7.6	0.34	2.57	29.6	106	1.95	0.148	0.141	8.6	0.35	3255	3776	241	68	C	F	0.0688	181.1	2.14	2294	12.3	163.5	1.93	1135	14.8	116.4	1.38	669	16.0	74.0	0.87
80	90	2455	12.5	12.0	12.0	13.6	14.3	1.82	4.1	7.9	0.34	2.76	30.3	105	2.02	0.149	0.141	8.6	0.36	3285	3776	240	68	C	F	0.0780	191.6	2.14	2191	12.7	175.2	1.96	1207	15.1	133.0	1.48	767	16.3	90.6	1.01
85	95	2293	13.1	12.5	12.4	14.0	14.7	1.89	4.2	8.2	0.33	2.96	30.9	104	2.09	0.149	0.142	8.5	0.37	3305	3776	237	68	C	F	0.0877	201.0	2.13	2086	13.2	185.8	1.96	1252	15.4	148.0	1.56	847	16.5	106.7	1.13
90	100	2145	13.6	13.0	12.8	14.4	15.1	1.95	4.3	8.5	0.33	3.16	31.4	103	2.16	0.150	0.143	8.5	0.37	3316	3776	235	68	C	F	0.0977	209.5	2.10	1981	13.7	195.2	1.96	1277	15.7	161.5	1.62	909	16.8	121.8	1.22
95	105	2010	14.2	13.6	13.1	14.7	15.5	2.01	4.4	8.7	0.33	3.35	31.7	101	2.23	0.151	0.144	8.4	0.38	3321	3776	232	67	C	F	0.1080	217.0	2.08	1878	14.1	203.5	1.95	1284	16.0	173.4	1.66	954	17.1	135.8	1.30
100	110	1888	14.7	14.1	13.5	15.1	15.8	2.07	4.5	9.0	0.33	3.55	32.0	100	2.30	0.153	0.145	8.4	0.38	3320	3776	228	67	C	F	0.1185	223.7	2.04	1782	14.6	211.0	1.93	1279	16.4	184.0	1.68	984	17.4	148.6	1.36
105	115	1776	15.2	14.6	13.8	15.4	16.1	2.13	4.6	9.2	0.33	3.75	32.2	99	2.37	0.154	0.147	8.3	0.38	3314	3776	225	67	C	F	0.1292	229.5	2.00	1690	15.0	217.5	1.90	1263	16.7	193.1	1.69	1002	17.7	160.1	1.40
110	120	1674	15.7	15.0	14.1	15.7	16.4	2.18	4.7	9.4	0.33	3.95	32.4	98	2.44	0.156	0.149	8.2	0.38	3305	3776	221	66	C	F	0.1402	234.7	1.96	1603	15.5	223.2	1.87	1240	17.0	201.2	1.68	1010	18.0	170.4	1.43
115	125	1580	16.2	15.5	14.4	16.0	16.7	2.24	4.8	9.6	0.33	4.15	32.5	97	2.52	0.158	0.150	8.1	0.38	3293	3776	218	66	C	F	0.1513	239.1	1.92	1522	15.9	228.1	1.83	1212	17.4	208.1	1.67	1009	18.3	179.5	1.44
120	130	1495	16.7	16.0	14.6	16.2	17.0	2.29	4.9	9.7	0.33	4.35	32.6	96	2.59	0.159	0.152	8.0	0.38	3280	3776	214	65	C	F	0.1625	243.0	1.88	1447	16.3	232.4	1.79	1181	17.7	214.1	1.65	1002	18.6	187.6	1.45
125	135	1417	17.1	16.4	14.9	16.5	17.3	2.34	5.0	9.9	0.33	4.55	32.6	95	2.66	0.161	0.154	7.9	0.38	3265	3776	211	64	C	F	0.1738	246.3	1.83	1377	16.7	236.2	1.76	1148	18.1	219.3	1.63	990	18.9	194.7	1.45
130	140	1346	17.6	16.9	15.1	16.7	17.5	2.39	5.1	10.0	0.33	4.75	32.6	94	2.73	0.163	0.156	7.8	0.38	3249	3776	207	64	C	F	0.1852	249.3	1.79	1312	17.1	239.5	1.72	1115	18.4	224.0	1.60	975	19.2	201.1	1.44
135	145	1280	18.0	17.3	15.3	16.9	17.7	2.44	5.2	10.1	0.33	4.94	32.6	93	2.80	0.165	0.158	7.7	0.38	3232	3776	204	63	C	F	0.1966	251.7	1.74	1251	17.6	242.2	1.68	1080	18.7	227.7	1.57	957	19.5	206.5	1.43
140	150	1220	18.4	17.7	15.6	17.1	17.9	2.49	5.3	10.3	0.34	5.14	32.5	92	2.86	0.167	0.160	7.6	0.38	3215	3776	200	63	C	F	0.2080	253.8	1.70	1195	18.0	244.7	1.64	1047	19.1	231.1	1.55	937	19.8	211.3	1.41
145	155	1165	18.8	18.1	15.8	17.3	18.1	2.54	5.4	10.4	0.34	5.34	32.5	91	2.93	0.169	0.162	7.5	0.38	3198	3776	197	62	C	F	0.2195	255.7	1.65	1144	18.3	246.8	1.60	1014	19.4	234.1	1.51	917	20.1	215.7	1.40
150	160	1113	19.3	18.5	16.0	17.5	18.3	2.58	5.5	10.5	0.34	5.53	32.4	90	3.00	0.171	0.164	7.4	0.38	3180	3776	194	62	C	F	0.2309	257.0	1.61	1095	18.7	248.3	1.56	981	19.7	236.3	1.48	895	20.4	219.2	1.37
155	165	1066	19.7	18.9	16.1	17.7	18.5	2.63	5.5	10.5	0.34	5.72	32.4	89	3.06	0.173	0.165	7.3	0.38	3164	3776	191	61	C	F	0.2422	258.2	1.57	1050	19.1	249.8	1.52	950	20.0	238.4	1.45	873	20.7	222.3	1.35
160	170	1023	20.1	19.3	16.3	17.9	18.7	2.67	5.6	10.6	0.34	5.92	32.3	88	3.13	0.175	0.167	7.2	0.37	3147	3776	189	61	C	F	0.2536	259.4	1.53	1009	19.5	251.1	1.48	921	20.4	240.2	1.42	851	21.0	225.1	1.33
165	175	982	20.4	19.7	16.5	18.1	18.9	2.71	5.7	10.7	0.34	6.11	32.2	87	3.19	0.177	0.169	7.1	0.37	3132	3776	186	60	C	F	0.2648	260.0	1.49	970	19.8	251.9	1.44	892	20.7	241.5	1.38	829	21.3	227.4	1.30
170	180	945	20.8	20.0	16.7	18.2	19.0	2.76	5.8	10.7	0.34	6.30	32.1	86	3.25	0.179	0.171	7.0	0.37	3116	3776	183	59	C	F	0.2759	260.7	1.45	935	20.2	252.8	1.41	865	21.0	242.8	1.35	809	21.6	229.5	1.28
175	185	910	21.2	20.4	16.8	18.4	19.2	2.80	5.8	10.8	0.35	6.48	32.1	85	3.31	0.181	0.173	7.0	0.37	3102	3776	181	59	C	F	0.2868	261.0	1.41	901	20.5	253.3	1.37	838	21.3	243.7	1.32	788	21.8	231.2	1.25
180	190	878	21.5	20.7	17.0	18.5	19.3	2.84	5.9	10.8	0.35	6.67	32.0	84	3.37	0.182	0.175	6.9	0.37	3088	3776	178	59	C	F	0.2977	261.4	1.38	870	20.9	253.8	1.34	814	21.6	244.5	1.29	768	22.1	232.7	1.23

Table A32. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 11 m Initial Density = 7000 stems/ha																																								
5	15	6942	1.1	1.0	1.9	2.3	2.4	0.68	1.4	0.4	0.77	0.37	0.7	207	1.20	0.520	0.501	0.6	0.01	887	4261	46	25	A	F	0.0001	0.6	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	6802	2.2	2.1	2.8	3.4	3.5	0.75	1.8	0.8	0.67	0.45	2.6	145	1.21	0.357	0.342	1.8	0.03	1159	4261	81	30	B	F	0.0006	3.8	0.19	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	6588	3.2	3.0	3.7	4.5	4.7	0.83	2.1	1.4	0.59	0.55	5.3	131	1.23	0.276	0.263	3.0	0.06	1459	4261	116	36	B	F	0.0015	10.2	0.42	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	6315	4.1	3.8	4.6	5.5	5.8	0.91	2.4	2.0	0.53	0.67	8.3	125	1.26	0.229	0.218	4.1	0.09	1764	4261	147	42	B	F	0.0032	20.1	0.68	22	8.3	0.3	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	5999	4.9	4.6	5.4	6.5	6.8	0.99	2.6	2.6	0.48	0.80	11.5	122	1.29	0.200	0.189	5.2	0.13	2057	4261	175	48	B	F	0.0055	33.1	0.96	269	8.3	3.6	0.10	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	40	5655	5.7	5.4	6.2	7.4	7.8	1.07	2.7	3.3	0.45	0.94	14.6	120	1.33	0.180	0.171	6.1	0.17	2326	4261	199	53	C	F	0.0085	48.3	1.22	835	8.5	13.2	0.33	2	12.3	0.1	0.00	0	0.0	0.0	0.00
35	45	5299	6.5	6.1	7.0	8.2	8.7	1.15	2.9	3.9	0.42	1.09	17.5	119	1.37	0.167	0.158	6.9	0.21	2564	4261	217	58	C	F	0.0123	65.1	1.46	1486	8.8	28.5	0.64	16	12.7	0.8	0.02	0	0.0	0.0	0.00
40	50	4942	7.2	6.8	7.7	9.0	9.5	1.23	3.0	4.4	0.40	1.24	20.1	117	1.42	0.158	0.149	7.5	0.24	2771	4261	232	61	C	F	0.0167	82.5	1.66	2028	9.1	46.9	0.95	67	12.9	3.8	0.08	7	14.5	0.4	0.01
45	55	4594	7.9	7.5	8.3	9.7	10.3	1.31	3.1	5.0	0.38	1.40	22.5	116	1.48	0.152	0.143	8.0	0.27	2945	4261	243	65	C	F	0.0218	100.0	1.83	2403	9.5	66.7	1.22	174	13.1	10.8	0.20	28	14.7	1.9	0.03
50	60	4261	8.6	8.1	8.9	10.4	11.0	1.38	3.3	5.5	0.37	1.57	24.6	114	1.53	0.147	0.139	8.4	0.29	3087	4261	251	67	C	F	0.0275	117.1	1.97	2622	9.8	86.5	1.45	332	13.3	22.5	0.38	77	14.9	5.8	0.10
55	65	3948	9.2	8.7	9.5	11.0	11.7	1.45	3.4	6.0	0.36	1.74	26.4	113	1.59	0.144	0.137	8.7	0.32	3202	4261	256	69	C	F	0.0338	133.5	2.07	2720	10.3	105.5	1.63	521	13.5	38.3	0.59	159	15.0	13.0	0.20
60	70	3657	9.9	9.4	10.0	11.6	12.3	1.52	3.5	6.4	0.35	1.92	27.9	111	1.65	0.143	0.135	8.9	0.34	3293	4261	259	70	D	F	0.0407	148.9	2.14	2733	10.7	123.4	1.77	714	13.8	56.8	0.82	269	15.2	23.6	0.34
65	75	3388	10.5	10.0	10.5	12.1	12.8	1.59	3.6	6.8	0.34	2.10	29.2	110	1.72	0.142	0.134	9.0	0.35	3362	4261	260	71	D	F	0.0481	163.1	2.19	2688	11.1	139.8	1.87	891	14.0	76.5	1.03	396	15.4	37.2	0.50
70	80	3141	11.1	10.5	11.0	12.6	13.4	1.66	3.7	7.2	0.34	2.28	30.2	109	1.78	0.141	0.134	9.1	0.36	3413	4261	260	72	D	F	0.0561	176.2	2.21	2606	11.6	154.9	1.95	1040	14.3	96.2	1.21	526	15.6	53.0	0.67
75	85	2915	11.6	11.1	11.4	13.1	13.8	1.72	3.9	7.5	0.33	2.47	31.1	107	1.85	0.141	0.134	9.1	0.37	3448	4261	258	72	D	F	0.0645	188.0	2.22	2503	12.0	168.4	1.99	1157	14.6	115.0	1.36	649	15.9	69.8	0.83
80	90	2710	12.2	11.6	11.9	13.5	14.3	1.79	4.0	7.9	0.33	2.65	31.8	106	1.92	0.142	0.134	9.1	0.38	3471	4261	256	72	D	F	0.0733	198.7	2.22	2390	12.5	180.6	2.02	1243	14.9	132.6	1.48	757	16.1	86.9	0.97
85	95	2524	12.8	12.2	12.3	13.9	14.7	1.85	4.1	8.2	0.33	2.84	32.3	105	1.99	0.143	0.135	9.0	0.39	3484	4261	253	72	D	F	0.0825	208.3	2.20	2273	12.9	191.5	2.02	1300	15.2	148.5	1.57	848	16.4	103.6	1.10
90	100	2355	13.3	12.7	12.6	14.3	15.1	1.91	4.2	8.4	0.33	3.04	32.8	104	2.06	0.144	0.136	9.0	0.39	3488	4261	249	71	D	F	0.0921	216.8	2.18	2156	13.4	201.1	2.02	1333	15.5	162.8	1.63	920	16.6	119.5	1.20
95	105	2201	13.8	13.2	13.0	14.7	15.5	1.97	4.3	8.7	0.33	3.23	33.1	103	2.13	0.145	0.138	8.9	0.40	3486	4261	245	71	D	F	0.1019	224.3	2.14	2042	13.8	209.6	2.00	1347	15.8	175.5	1.68	974	16.9	134.3	1.28
100	110	2061	14.4	13.7	13.3	15.0	15.8	2.03	4.4	8.9	0.32	3.42	33.3	101	2.20	0.147	0.139	8.8	0.40	3478	4261	241	71	D	F	0.1120	230.9	2.11	1933	14.3	217.1	1.98	1345	16.1	186.6	1.70	1012	17.2	147.8	1.35
105	115	1935	14.9	14.2	13.6	15.3	16.1	2.09	4.5	9.1	0.32	3.61	33.5	100	2.27	0.148	0.141	8.7	0.40	3466	4261	237	70	C	F	0.1224	236.8	2.07	1832	14.7	223.7	1.95	1332	16.5	196.3	1.71	1036	17.5	160.0	1.40
110	120	1819	15.3	14.7	13.9	15.6	16.4	2.14	4.6	9.3	0.33	3.81	33.6	99	2.34	0.150	0.143	8.6	0.40	3451	4261	233	69	C	F	0.1329	241.8	2.02	1734	15.1	229.4	1.92	1310	16.8	204.7	1.71	1048	17.7	170.9	1.43
115	125	1714	15.8	15.2	14.2	15.9	16.7	2.20	4.7	9.5	0.33	4.00	33.7	98	2.42	0.152	0.144	8.5	0.40	3433	4261	229	69	C	F	0.1436	246.2	1.98	1644	15.6	234.3	1.88	1283	17.1	212.0	1.70	1051	18.0	180.6	1.45
120	130	1619	16.3	15.6	14.4	16.2	17.0	2.25	4.8	9.7	0.33	4.20	33.7	97	2.49	0.154	0.146	8.4	0.40	3414	4261	225	68	C	F	0.1545	250.1	1.93	1561	16.0	238.8	1.84	1252	17.4	218.5	1.69	1047	18.3	189.2	1.46
125	135	1531	16.7	16.1	14.7	16.4	17.3	2.30	4.9	9.9	0.33	4.39	33.7	96	2.56	0.156	0.148	8.2	0.40	3394	4261	221	67	C	F	0.1654	253.2	1.88	1483	16.4	242.4	1.80	1217	17.8	223.8	1.66	1036	18.6	196.7	1.46
130	140	1452	17.2	16.5	14.9	16.7	17.5	2.35	5.0	10.0	0.33	4.59	33.7	95	2.62	0.158	0.150	8.1	0.40	3373	4261	217	67	C	F	0.1764	256.2	1.84	1412	16.8	245.8	1.76	1182	18.1	228.6	1.64	1022	18.9	203.4	1.46
135	145	1378	17.6	16.9	15.2	16.9	17.7	2.40	5.1	10.1	0.33	4.78	33.6	94	2.69	0.160	0.152	8.0	0.40	3351	4261	213	66	C	F	0.1875	258.4	1.79	1344	17.2	248.3	1.72	1145	18.4	232.4	1.61	1004	19.2	209.1	1.45
140	150	1311	18.1	17.3	15.4	17.1	17.9	2.45	5.2	10.2	0.33	4.97	33.6	93	2.76	0.162	0.154	7.9	0.39	3329	4261	210	65	C	F	0.1986	260.4	1.74	1282	17.6	250.6	1.68	1109	18.8	235.8	1.58	984	19.5	214.2	1.43
145	155	1250	18.5	17.8	15.6	17.3	18.1	2.49	5.3	10.3	0.33	5.16	33.5	92	2.83	0.164	0.156	7.8	0.39	3308	4261	206	65	C	F	0.2097	262.1	1.70	1225	18.0	252.7	1.63	1074	19.1	238.8	1.54	963	19.8	218.7	1.41
150	160	1193	18.9	18.1	15.8	17.5	18.3	2.54	5.3	10.4	0.33	5.35	33.4	91	2.90	0.166	0.158	7.7	0.39	3287	4261	203	64	C	F	0.2208	263.4	1.65	1172	18.4	254.3	1.59	1040	19.4	241.3	1.51	941	20.1	222.5	1.39
155	165	1141	19.3	18.5	16.0	17.7	18.5	2.59	5.4	10.5	0.34	5.54	33.3	90	2.96	0.168	0.160	7.6	0.39	3266	4261	199	63	C	F	0.2319	264.6	1.61	1123	18.7	255.7	1.55	1006	19.7	243.3	1.48	918	20.4	225.8	1.37
160	170	1093	19.7	18.9	16.1	17.8	18.7	2.63	5.5	10.6	0.34	5.73	33.2	89	3.02	0.170	0.162	7.5	0.39	3246	4261	196	63	C	F	0.2429	265.5	1.57	1077	19.1	256.8	1.51	974	20.1	245.1	1.45	895	20.7	228.6	1.35
165	175	1048	20.1	19.3	16.3	18.0	18.9	2.67	5.6	10.7	0.34	5.92	33.1	88	3.09	0.172	0.164	7.4	0.38	3226	4261	193	62	C	F	0.2538	266.0	1.52	1034	19.5	257.6	1.48	943	20.4	246.4	1.41	872	21.0	231.0	1.32
170	180	1007	20.4	19.7	16.5	18.2	19.0	2.71	5.6	10.7	0.34	6.11	33.0	87	3.15	0.174	0.166	7.3	0.38	3207	4261	190	61	C	F	0.2647	266.6	1.48	995	19.8	258.3	1.44	914	20.7	247.6	1.38	850	21.3	233.1	1.30
175	185	968	20.8	20.0	16.6	18.3	19.2	2.76	5.7	10.8	0.34	6.29	32.9	86	3.21	0.176	0.168	7.2	0.38	3190	4261	188	61	C	F	0.2755	266.7	1.44	957	20.2	258.6	1.40	885	21.0	248.3	1.35	828	21.5	234.8	1.27
180	190	933	21.2	20.4	16.8	18.4	19.3	2.80	5.8	10.8	0.34	6.47	32.8	85	3.27	0.177	0.170	7.1	0.38	3172	4261	185	60	C	F	0.2862	267.0	1.41	924	20.5	259.1	1.37	859	21.3	249.2	1.31	807	21.8	236.4	1.25
SI = 11 m Initial Density = 7500 stems/ha																																								
5	15	7436	1.1	1.0	1.9	2.3	2.4	0.68	1.4	0.4	0.76	0.37	0.7	211	1.16	0.503	0.485	0.7	0.01	945	4498	49	27	A	F	0.0001	0.7	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	7280	2.2	2.0	2.8	3.4	3.5	0.75	1.8	0.8	0.67	0.44	2.7	147	1.17	0.345	0.331	1.8	0.03	1228	4498	85	32	B	F	0.0005	3.8	0.19	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	7044	3.1	2.9	3.7	4.5	4.7	0.83	2.1	1.4	0.59	0.54	5.5	132	1.19	0.267	0.254	3.1	0.06	1538	4498	121	38	B	F	0.0015	10.5	0.43	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	6743	4.0	3.8	4.6	5.5	5.8	0.91	2.3	2.0	0.52	0.66	8.6	127	1.22	0.222	0.211	4.3	0.10	1852	4498	154	44	B	F	0.0031	20.6	0.70	18	8.3	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	6394	4.9	4.6	5.4	6.5	6.8	0.99	2.5	2.6	0.48	0.79	11.8	123	1.25	0.194	0.183	5.4	0.14	2152	4498	183	50	C	F	0.0053	33.9	0.98	247	8.3	3.2	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	40	6017	5.6	5.3	6.2	7.4	7.8	1.06	2.7	3.3	0.44	0.92	15.0	121	1.29	0.175	0.166	6.3	0.18	2426	4498	207	56	C	F	0.0082	49.5	1.25	810	8.5	12.6	0.32	2	12.2	0.1	0.00	0	0.0	0.0	0.00
35	45	5627	6.4	6.0	6.9	8.2	8.7	1.14	2.8	3.9	0.41	1.07	18.0	119	1.33	0.162	0.154	7.1	0.21	2668	4498	226	60	C	F	0.0118	66.5	1.49	1485	8.7	27.9	0.63	13	12.7	0.7	0.02	0	0.0	0.0	0.00
40	50	5237	7.1	6.7	7.6	9.0	9.5	1.22	3.0	4.4	0.39	1.22	20.7	118	1.38	0.154	0.145	7.8	0.25	2876	4498	241	64	C	F	0.0161	84.3	1.70	2060	9.0	46.6	0.94	58	12.9	3.3	0.07	5	14.5	0.3	0.01
45	55	4859	7.8	7.4	8.3	9.7	10.3	1.29	3.1	5.0	0.38	1.38	23.1	116	1.43	0.148	0.139	8.3	0.28	3050	4498	253	67	C	F	0.0210	102.1	1.87	2465	9.4	66.8	1.22	158	13.1	9.8	0.18	23	14.7	1.6	0.03
50	60	4498	8.5	8.0	8.9	10.4	11.0	1.37	3.2	5.5	0.36	1.54	25.2	115	1.49	0.144	0.136	8.7	0.30	3191	4498	260	69	C	F	0.0266	119.5	2.01	2705	9.8	86.9	1.46	313	13.3	21.0	0.35	68	14.8	5.1	0.09
55	65	4160	9.1	8.6	9.4	11.0	11.7	1.44	3.3	5.9	0.35	1.71	27.0	113	1.55	0.141	0.133	9.0	0.33	3304	4498	265	71	D	F	0.0327	136.1	2.11	2817	10.2	106.4	1.65	501	13.5	36.5	0.57	146	15.0	11.8	0.18
60	70	3846	9.7	9.2	10.0	11.6	12.3	1.51	3.4	6.4	0.34	1.88	28.6	112	1.61	0.139	0.131	9.2	0.34	3392	4498	268	72	D	F	0.0394	151.6	2.18	2835	10.6	124.6	1.79	698	13.7	54.9	0.79	253	15.2	22.0	0.32
65	75	3557	10.3	9.8	10.5	12.1	12.8	1.58	3.6	6.8	0.34	2.06	29.8	111	1.68	0.138	0.131	9.3	0.36	3458	4498	268	73	D	F	0.0467	166.0	2.23	2791	11.0	141.4	1.90	882	14.0	74.8	1.00	379	15.4	35.3	0.47
70	80	3293	10.9	10.4	10.9	12.6	13.4	1.64	3.7	7.2	0.33	2.24	30.9	109	1.74	0.138	0.130	9.3	0.37	3506	4498	268	74	D	F	0.0544	179.2	2.25	2709	11.5	156.8	1.97	1039	14.2	94.9	1.19	511	15.6	50.9	0.64
75	85	3052	11.5	11.0	11.4	13.1	13.8	1.71	3.8	7.5	0.33	2.42	31.7	108	1.81	0.138	0.131	9.4	0.38	3538	4498	266	74	D	F	0.0626	191.1	2.26	2602	11.9	170.5	2.02	1164	14.5	114.1	1.35	637	15.8	67.7	0.80
80	90	2834	12.1	11.5	11.8	13.5	14.3	1.77	3.9	7.8	0.33	2.61	32.4	107	1.88	0.139	0.131	9.3	0.39	3558	4498	263	74	D	F	0.0712	201.9	2.25	2485	12.3	182.9	2.04	1257	14.8	132.1	1.47	750	16.0	85.0	0.95
85	95	2635	12.6	12.0	12.2	13.9	14.7	1.83	4.0	8.1	0.33	2.79	33.0	106	1.95	0.140	0.132	9.3	0.40	3567	4498	260	74	D	F	0.0803	211.5	2.24	2361	12.8	193.9	2.05	1319	15.1	148.4	1.57	846	16.3	102.0	1.08
90	100	2456	13.2	12.6	12.6	14.3	15.1	1.89	4.1	8.4	0.32	2.98	33.4	104	2.02	0.141	0.134	9.2	0.40	3568	4498	256	73	D	F	0.0896	220.1	2.21	2240	13.2	203.7	2.05	1357	15.4	163.2	1.64	923	16.6	118.2	1.19
95	105	2293	13.7	13.1	12.9	14.7	15.5	1.95	4.2	8.7	0.32	3.17	33.7	103	2.09	0.142	0.135	9.1	0.41	3562	4498	252	73	D	F	0.0993	227.6	2.18	2120	13.7	212.3	2.03	1374	15.7	176.2	1.68	981	16.8	133.3	1.27
100	110	2145	14.2	13.6	13.2	15.0	15.8	2.01	4.3	8.9	0.32	3.36	34.0	102	2.16	0.144	0.136	9.0	0.41	3551	4498	248	72	D	F	0.1092	234.2	2.14	2006	14.1	219.8	2.01	1375	16.0	187.6	1.71	1022	17.1	147.1	1.34
105	115	2011	14.7	14.1	13.5	15.3	16.1	2.07	4.4	9.1	0.32	3.55	34.1	101	2.23	0.146	0.138	8.9	0.41	3537	4498	243	71	D	F	0.1193	240.0	2.09	1899	14.6	226.4	1.98	1363	16.4	197.5	1.72	1049	17.4	159.6	1.39
110	120	1890	15.2	14.5	13.8	15.6	16.4	2.12	4.5	9.3	0.32	3.75	34.2	100	2.30	0.147	0.140	8.8	0.41	3519	4498	239	71	D	F	0.1297	245.1	2.05	1798	15.0	232.2	1.94	1343	16.7	206.3	1.73	1065	17.6	170.9	1.43
115	125	1779	15.7	15.0	14.1	15.9	16.7	2.18	4.6	9.5	0.32	3.94	34.3	98	2.37	0.149	0.142	8.7	0.41	3498	4498	234	70	D	F	0.1402	249.4	2.00	1703	15.4	237.2	1.90	1315	17.0	213.7	1.72	1069	17.9	180.8	1.45
120	130	1678	16.1	15.5	14.4	16.1	17.0	2.23	4.7	9.7	0.32	4.13	34.3	97	2.44	0.151	0.144	8.5	0.41	3477	4498	230	69	C	F	0.1509	253.2	1.95	1615	15.8	241.5	1.86	1283	17.3	220.1	1.70	1066	18.2	189.6	1.46
125	135	1586	16.6	15.9	14.6	16.4	17.3	2.28	4.8	9.8	0.32	4.32	34.3	96	2.51	0.153	0.146	8.4	0.41	3454	4498	226	69	C	F	0.1617	256.4	1.91	1534	16.2	245.2	1.82	1249	17.7	225.7	1.68	1057	18.5	197.4	1.47
130	140	1503	17.0	16.3	14.9	16.6	17.5	2.33	4.9	10.0	0.33	4.51	34.2	95	2.58	0.155	0.147	8.3	0.41	3430	4498	222	68	C	F	0.1725	259.3	1.86	1459	16.7	248.5	1.78	1213	18.0	230.6	1.65	1043	18.8	204.3	1.46
135	145	1426	17.5	16.8	15.1	16.8	17.7	2.38	5.0	10.1	0.33	4.70	34.2	94	2.65	0.157	0.149	8.2	0.40	3406	4498	218	67	C	F	0.1834	261.5	1.81	1389	17.1	251.2	1.74	1176	18.3	234.6	1.62	1026	19.1	210.2	1.45
140	150	1355	17.9	17.2	15.3	17.1	17.9	2.43	5.1	10.2	0.33	4.89	34.1	93	2.72	0.159	0.151	8.1	0.40	3383	4498	214	66	C	F	0.1943	263.3	1.76	1324	17.4	253.4	1.69	1139	18.6	238.0	1.59	1006	19.4	215.4	1.44
145	155	1291	18.3	17.6	15.5	17.3	18.1	2.48	5.2	10.3	0.33	5.08	34.0	92	2.78	0.161	0.153	7.9	0.40	3359	4498	210	66	C	F	0.2053	265.1	1.72	1264	17.8	255.4	1.65	1103	19.0	241.0	1.56	985	19.7	220.0	1.42
150	160	1231	18.7	18.0	15.7	17.4	18.3	2.52	5.3	10.4	0.33	5.27	33.9	91	2.85	0.163	0.155	7.8	0.40	3336	4498	207	65	C	F	0.2162	266.2	1.67	1208	18.2	256.8	1.61	1067	19.3	243.3	1.52	962	20.0	223.7	1.40
155	165	1177	19.1	18.4	15.9	17.6	18.5	2.57	5.4	10.5	0.33	5.46	33.8	90	2.91	0.165	0.157	7.7	0.39	3313	4498	203	64	C	F	0.2272	267.4	1.62	1157	18.6	258.3	1.57	1033	19.6	245.5	1.49	939	20.3	227.2	1.38
160	170	1126	19.5	18.8	16.1	17.8	18.7	2.61	5.4	10.6	0.33	5.65	33.6	89	2.98	0.167	0.159	7.6	0.39	3291	4498	200	64	C	F	0.2381	268.1	1.58	1109	19.0	259.2	1.53	999	19.9	247.1	1.46	915	20.6	230.0	1.36
165	175	1080	19.9	19.1	16.2	18.0	18.9	2.65	5.5	10.6	0.33	5.83	33.5	88	3.04	0.169	0.161	7.5	0.39	3270	4498	197	63	C	F	0.2489	268.8	1.54	1065	19.3	260.2	1.49	968	20.2	248.7	1.42	893	20.8	232.6	1.33
170	180	1036	20.3	19.5	16.4	18.1	19.0	2.69	5.6	10.7	0.34	6.02	33.4	87	3.11	0.171	0.163	7.4	0.39	3250	4498	194	62	C	F	0.2597	269.0	1.50	1023	19.7	260.6	1.45	937	20.5	249.6	1.39	869	21.1	234.5	1.31
175	185	996	20.6	19.9	16.5	18.3	19.2	2.74	5.7	10.8	0.34	6.20	33.3	86	3.17	0.173	0.165	7.3	0.38	3230	4498	191	62	C	F	0.2703	269.2	1.46	984	20.0	261.0	1.41	908	20.8	250.5	1.36	847	21.4	236.3	1.28
180	190	959	21.0	20.2	16.7	18.4	19.3	2.78	5.7	10.8	0.34	6.39	33.2	85	3.23	0.175	0.167	7.2	0.38	3212	4498	188	61	C	F	0.2809	269.4	1.42	949	20.4	261.3	1.38	880	21.2	251.1	1.32	825	21.7	237.9	1.25

Table A33. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 11 m Initial Density = 8000 stems/ha																																								
5	15	7929	1.1	1.0	1.9	2.3	2.4	0.68	1.4	0.4	0.76	0.36	0.7	215	1.12	0.487	0.469	0.7	0.01	1002	4732	51	29	A	F	0.0001	0.7	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	7759	2.1	2.0	2.8	3.4	3.5	0.75	1.7	0.8	0.66	0.44	2.8	149	1.14	0.335	0.320	1.9	0.03	1296	4732	89	34	B	F	0.0005	3.9	0.20	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	7500	3.1	2.9	3.7	4.5	4.7	0.82	2.0	1.4	0.58	0.54	5.6	134	1.15	0.259	0.247	3.2	0.06	1616	4732	127	40	B	F	0.0014	10.7	0.44	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	7169	4.0	3.7	4.5	5.5	5.8	0.90	2.3	2.0	0.52	0.65	8.9	128	1.18	0.215	0.204	4.4	0.10	1938	4732	161	47	B	F	0.0029	21.1	0.71	14	8.3	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	6788	4.8	4.5	5.4	6.5	6.8	0.98	2.5	2.7	0.47	0.77	12.2	124	1.21	0.188	0.178	5.6	0.14	2245	4732	191	53	C	F	0.0051	34.7	1.00	226	8.3	2.9	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	40	6376	5.6	5.2	6.1	7.4	7.8	1.06	2.6	3.3	0.44	0.91	15.4	122	1.25	0.170	0.161	6.6	0.18	2523	4732	215	58	C	F	0.0079	50.6	1.28	785	8.4	12.0	0.30	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	45	5952	6.3	5.9	6.9	8.2	8.7	1.13	2.8	3.9	0.41	1.05	18.5	120	1.30	0.158	0.149	7.4	0.22	2769	4732	235	62	C	F	0.0114	68.0	1.53	1479	8.7	27.2	0.61	11	12.7	0.6	0.01	0	0.0	0.0	0.00
40	50	5530	7.0	6.6	7.6	9.0	9.5	1.21	2.9	4.4	0.39	1.20	21.3	119	1.34	0.150	0.141	8.0	0.25	2978	4732	250	66	C	F	0.0156	86.0	1.73	2086	9.0	46.2	0.93	51	12.8	2.9	0.06	4	14.4	0.2	0.00
45	55	5121	7.7	7.3	8.2	9.7	10.3	1.28	3.0	5.0	0.37	1.35	23.7	117	1.40	0.144	0.136	8.6	0.28	3151	4732	262	69	C	F	0.0203	104.1	1.91	2520	9.3	66.7	1.22	144	13.0	8.8	0.16	20	14.6	1.4	0.03
50	60	4732	8.3	7.9	8.8	10.4	11.0	1.35	3.2	5.5	0.36	1.51	25.8	116	1.45	0.140	0.132	9.0	0.31	3292	4732	269	72	D	F	0.0257	121.7	2.04	2782	9.7	87.3	1.47	294	13.2	19.6	0.33	60	14.8	4.5	0.08
55	65	4369	9.0	8.5	9.4	11.0	11.7	1.43	3.3	5.9	0.35	1.68	27.7	114	1.51	0.138	0.130	9.2	0.33	3403	4732	274	73	D	F	0.0317	138.5	2.14	2907	10.1	107.2	1.66	482	13.4	34.8	0.54	133	15.0	10.7	0.17
60	70	4033	9.6	9.1	9.9	11.6	12.3	1.49	3.4	6.4	0.34	1.85	29.2	113	1.57	0.136	0.128	9.4	0.35	3488	4732	276	75	D	F	0.0383	154.3	2.22	2933	10.5	125.8	1.81	682	13.7	53.1	0.76	237	15.1	20.4	0.29
65	75	3724	10.2	9.7	10.4	12.1	12.8	1.56	3.5	6.8	0.34	2.02	30.5	111	1.64	0.135	0.128	9.5	0.37	3551	4732	276	75	D	F	0.0453	168.8	2.26	2891	10.9	142.9	1.92	872	13.9	73.1	0.98	362	15.3	33.4	0.45
70	80	3443	10.8	10.3	10.9	12.6	13.4	1.63	3.6	7.1	0.33	2.20	31.5	110	1.70	0.135	0.128	9.6	0.38	3595	4732	275	76	D	F	0.0529	182.1	2.29	2808	11.4	158.5	1.99	1036	14.2	93.5	1.18	495	15.5	48.8	0.61
75	85	3187	11.4	10.8	11.3	13.1	13.8	1.69	3.7	7.5	0.33	2.38	32.4	109	1.77	0.136	0.128	9.6	0.39	3624	4732	273	76	D	F	0.0609	194.1	2.30	2698	11.8	172.5	2.04	1168	14.4	113.1	1.34	625	15.8	65.7	0.78
80	90	2955	11.9	11.4	11.7	13.5	14.3	1.76	3.9	7.8	0.32	2.56	33.1	107	1.84	0.136	0.129	9.6	0.40	3640	4732	270	76	D	F	0.0693	204.9	2.29	2576	12.2	185.1	2.07	1268	14.7	131.5	1.47	742	16.0	83.1	0.93
85	95	2745	12.5	11.9	12.1	13.9	14.7	1.82	4.0	8.1	0.32	2.75	33.6	106	1.91	0.137	0.130	9.5	0.41	3646	4732	267	75	D	F	0.0781	214.5	2.27	2448	12.7	196.2	2.07	1336	15.0	148.3	1.57	843	16.2	100.4	1.06
90	100	2555	13.0	12.4	12.5	14.3	15.1	1.88	4.1	8.4	0.32	2.93	34.0	105	1.98	0.138	0.131	9.4	0.41	3644	4732	262	75	D	F	0.0873	223.1	2.24	2320	13.1	206.1	2.07	1379	15.3	163.4	1.64	924	16.5	116.8	1.17
95	105	2383	13.5	12.9	12.8	14.6	15.5	1.94	4.2	8.7	0.32	3.12	34.3	104	2.05	0.140	0.132	9.3	0.41	3635	4732	258	74	D	F	0.0968	230.6	2.21	2196	13.6	214.7	2.05	1399	15.6	176.7	1.69	986	16.7	132.2	1.26
100	110	2227	14.1	13.4	13.2	15.0	15.8	2.00	4.3	8.9	0.32	3.31	34.5	102	2.12	0.142	0.134	9.2	0.41	3622	4732	253	74	D	F	0.1065	237.2	2.16	2077	14.0	222.3	2.03	1402	15.9	138.4	1.72	1031	17.0	146.3	1.34
105	115	2086	14.5	13.9	13.5	15.3	16.1	2.05	4.4	9.1	0.32	3.50	34.7	101	2.19	0.143	0.136	9.1	0.42	3604	4732	249	73	D	F	0.1165	243.0	2.12	1964	14.4	229.0	2.00	1392	16.3	198.6	1.73	1061	17.3	159.1	1.39
110	120	1958	15.0	14.4	13.8	15.6	16.4	2.11	4.5	9.3	0.32	3.69	34.8	100	2.26	0.145	0.137	9.0	0.42	3583	4732	244	72	D	F	0.1267	248.0	2.07	1859	14.9	234.7	1.96	1372	16.6	207.4	1.73	1079	17.6	170.7	1.43
115	125	1842	15.5	14.9	14.0	15.9	16.7	2.16	4.6	9.5	0.32	3.88	34.8	99	2.33	0.147	0.139	8.8	0.42	3560	4732	240	71	D	F	0.1370	252.4	2.03	1760	15.3	239.8	1.92	1346	16.9	215.2	1.73	1086	17.8	180.9	1.45
120	130	1737	16.0	15.3	14.3	16.1	17.0	2.21	4.7	9.7	0.32	4.07	34.8	98	2.40	0.149	0.141	8.7	0.41	3536	4732	235	71	D	F	0.1475	256.2	1.98	1669	15.7	244.2	1.88	1314	17.2	221.8	1.71	1084	18.1	190.0	1.47
125	135	1640	16.4	15.8	14.5	16.4	17.3	2.26	4.8	9.8	0.32	4.26	34.8	97	2.47	0.151	0.143	8.6	0.41	3511	4732	231	70	C	F	0.1581	259.3	1.93	1584	16.1	247.8	1.84	1279	17.5	227.4	1.69	1076	18.4	197.9	1.47
130	140	1552	16.9	16.2	14.8	16.6	17.5	2.31	4.9	10.0	0.32	4.45	34.7	96	2.54	0.153	0.145	8.4	0.41	3485	4732	226	69	C	F	0.1688	262.0	1.88	1505	16.5	251.0	1.80	1242	17.9	232.2	1.66	1063	18.7	204.9	1.47
135	145	1472	17.3	16.6	15.0	16.8	17.7	2.36	5.0	10.1	0.33	4.63	34.6	94	2.61	0.155	0.147	8.3	0.41	3459	4732	222	68	C	F	0.1796	264.3	1.83	1432	16.9	253.7	1.75	1205	18.2	236.4	1.64	1046	19.0	211.1	1.46
140	150	1399	17.7	17.0	15.2	17.0	17.9	2.41	5.1	10.2	0.33	4.82	34.5	93	2.67	0.157	0.149	8.2	0.41	3433	4732	218	67	C	F	0.1904	266.3	1.78	1365	17.3	256.1	1.71	1168	18.5	240.1	1.61	1027	19.3	216.5	1.45
145	155	1331	18.1	17.4	15.4	17.2	18.1	2.46	5.1	10.3	0.33	5.01	34.4	92	2.74	0.159	0.151	8.1	0.41	3408	4732	214	67	C	F	0.2012	267.8	1.73	1302	17.7	257.9	1.67	1130	18.8	242.9	1.57	1005	19.6	221.0	1.43
150	160	1269	18.6	17.8	15.6	17.4	18.3	2.50	5.2	10.4	0.33	5.20	34.3	91	2.81	0.161	0.153	8.0	0.40	3383	4732	210	66	C	F	0.2120	269.0	1.69	1244	18.1	259.4	1.63	1093	19.2	245.4	1.54	982	19.9	225.0	1.41
155	165	1212	19.0	18.2	15.8	17.6	18.5	2.55	5.3	10.5	0.33	5.38	34.2	90	2.87	0.163	0.155	7.9	0.40	3359	4732	207	65	C	F	0.2228	270.0	1.64	1191	18.4	260.7	1.58	1058	19.5	247.5	1.50	959	20.1	228.5	1.39
160	170	1159	19.3	18.6	16.0	17.8	18.7	2.59	5.4	10.6	0.33	5.57	34.0	89	2.94	0.165	0.157	7.7	0.40	3335	4732	203	65	C	F	0.2336	270.7	1.60	1140	18.8	261.6	1.54	1024	19.8	249.1	1.47	935	20.4	231.4	1.36
165	175	1111	19.7	19.0	16.1	17.9	18.9	2.63	5.5	10.6	0.33	5.75	33.9	88	3.00	0.167	0.159	7.6	0.39	3312	4732	200	64	C	F	0.2442	271.3	1.55	1095	19.2	262.5	1.50	991	20.1	250.6	1.44	912	20.7	234.0	1.34
170	180	1066	20.1	19.3	16.3	18.1	19.0	2.68	5.5	10.7	0.34	5.94	33.8	88	3.06	0.169	0.161	7.5	0.39	3290	4732	197	63	C	F	0.2549	271.7	1.51	1052	19.5	263.1	1.47	960	20.4	251.8	1.40	888	21.0	236.1	1.31
175	185	1024	20.5	19.7	16.5	18.2	19.2	2.72	5.6	10.7	0.34	6.12	33.7	87	3.13	0.171	0.163	7.4	0.39	3270	4732	194	63	C	F	0.2654	271.8	1.47	1012	19.9	263.4	1.43	930	20.7	252.6	1.37	865	21.3	237.9	1.29
180	190	985	20.8	20.0	16.6	18.4	19.3	2.76	5.7	10.8	0.34	6.30	33.5	86	3.19	0.173	0.165	7.3	0.39	3250	4732	191	62	C	F	0.2759	271.8	1.43	974	20.2	263.5	1.39	901	21.0	253.1	1.34	843	21.6	239.4	1.26
SI = 11 m Initial Density = 9000 stems/ha																																								
5	15	8916	1.0	1.0	1.9	2.3	2.4	0.68	1.3	0.4	0.75	0.36	0.7	222	1.06	0.460	0.443	0.7	0.01	1117	5191	56	32	B	F	0.0001	0.7	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	8714	2.1	1.9	2.8	3.4	3.5	0.74	1.7	0.9	0.65	0.43	2.9	152	1.07	0.316	0.302	2.0	0.03	1430	5191	97	38	B	F	0.0005	4.1	0.21	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	8407	3.0	2.8	3.7	4.5	4.7	0.81	2.0	1.4	0.57	0.53	5.9	136	1.09	0.245	0.233	3.4	0.07	1768	5191	137	44	B	F	0.0013	11.2	0.46	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	8017	3.9	3.6	4.5	5.5	5.8	0.89	2.2	2.0	0.51	0.63	9.3	130	1.12	0.204	0.193	4.8	0.11	2106	5191	174	51	C	F	0.0027	22.0	0.74	10	8.2	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	7569	4.6	4.4	5.3	6.4	6.8	0.97	2.4	2.7	0.46	0.75	12.8	126	1.15	0.178	0.169	6.0	0.15	2425	5191	205	57	C	F	0.0048	36.1	1.04	189	8.2	2.4	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	40	7087	5.4	5.1	6.1	7.3	7.8	1.04	2.6	3.3	0.43	0.88	16.2	124	1.19	0.162	0.153	7.0	0.19	2712	5191	231	62	C	F	0.0074	52.6	1.33	731	8.4	10.9	0.28	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	45	6593	6.1	5.8	6.8	8.2	8.7	1.12	2.7	3.9	0.40	1.02	19.4	122	1.23	0.150	0.142	7.8	0.23	2962	5191	252	67	C	F	0.0107	70.5	1.58	1458	8.6	25.9	0.58	7	12.6	0.4	0.01	0	0.0	0.0	0.00
40	50	6105	6.8	6.4	7.5	9.0	9.5	1.19	2.8	4.4	0.38	1.16	22.3	120	1.28	0.143	0.134	8.5	0.27	3172	5191	268	71	D	F	0.0146	89.2	1.80	2123	8.9	45.2	0.91	38	12.8	2.1	0.04	3	14.3	0.2	0.00
45	55	5635	7.5	7.1	8.1	9.7	10.3	1.26	2.9	4.9	0.37	1.31	24.8	118	1.33	0.138	0.129	9.1	0.30	3345	5191	279	74	D	F	0.0191	107.8	1.98	2614	9.2	66.4	1.22	119	13.0	7.2	0.13	14	14.6	1.0	0.02
50	60	5191	8.1	7.7	8.7	10.4	11.0	1.33	3.1	5.4	0.35	1.46	27.0	117	1.39	0.134	0.126	9.5	0.33	3482	5191	286	76	D	F	0.0242	125.8	2.11	2920	9.6	87.7	1.47	259	13.1	17.0	0.29	47	14.7	3.5	0.06
55	65	4778	8.8	8.3	9.3	11.0	11.7	1.40	3.2	5.9	0.34	1.62	28.9	115	1.45	0.132	0.124	9.7	0.35	3589	5191	290	78	D	F	0.0299	143.0	2.21	3074	9.9	108.4	1.68	443	13.4	31.5	0.49	111	14.9	8.8	0.14
60	70	4397	9.4	8.9	9.8	11.5	12.3	1.47	3.3	6.3	0.34	1.79	30.4	114	1.51	0.131	0.123	9.9	0.37	3669	5191	292	79	D	F	0.0362	159.0	2.29	3114	10.3	127.6	1.83	647	13.6	49.5	0.71	208	15.1	17.6	0.25
65	75	4050	10.0	9.5	10.3	12.1	12.8	1.54	3.4	6.7	0.33	1.96	31.7	112	1.57	0.130	0.122	10.0	0.39	3726	5191	292	79	D	F	0.0429	173.8	2.33	3079	10.8	145.4	1.95	847	13.8	69.7	0.93	330	15.2	29.9	0.40
70	80	3734	10.6	10.0	10.8	12.6	13.4	1.60	3.5	7.1	0.33	2.13	32.7	111	1.64	0.130	0.123	10.1	0.40	3764	5191	290	79	D	F	0.0501	187.2	2.35	2994	11.2	161.5	2.03	1024	14.1	90.4	1.14	464	15.4	44.9	0.56
75	85	3448	11.1	10.6	11.2	13.0	13.8	1.67	3.6	7.5	0.32	2.30	33.6	110	1.70	0.131	0.123	10.1	0.41	3786	5191	287	79	D	F	0.0578	199.4	2.36	2879	11.6	175.9	2.08	1170	14.3	110.7	1.31	598	15.7	61.6	0.73
80	90	3190	11.7	11.1	11.6	13.5	14.3	1.73	3.8	7.8	0.32	2.48	34.2	108	1.77	0.131	0.124	10.0	0.42	3796	5191	284	79	D	F	0.0659	210.3	2.35	2749	12.0	188.8	2.11	1283	14.6	129.9	1.45	723	15.9	79.2	0.88
85	95	2957	12.2	11.7	12.0	13.9	14.7	1.79	3.9	8.1	0.32	2.66	34.7	107	1.84	0.133	0.125	9.9	0.42	3796	5191	279	79	D	F	0.0744	220.0	2.33	2612	12.5	200.2	2.12	1363	14.9	147.4	1.56	831	16.1	96.8	1.02
90	100	2747	12.8	12.2	12.4	14.2	15.1	1.85	4.0	8.4	0.32	2.84	35.1	106	1.91	0.134	0.126	9.8	0.43	3788	5191	275	78	D	F	0.0832	228.6	2.30	2475	12.9	210.3	2.11	1414	15.2	163.1	1.64	921	16.4	113.7	1.14
95	105	2558	13.3	12.7	12.7	14.6	15.5	1.91	4.1	8.6	0.32	3.02	35.4	104	1.98	0.135	0.128	9.7	0.43	3773	5191	270	77	D	F	0.0923	236.2	2.26	2341	13.3	219.1	2.10	1442	15.5	177.2	1.69	992	16.6	129.7	1.24
100	110	2387	13.8	13.2	13.0	14.9	15.8	1.97	4.2	8.9	0.32	3.21	35.6	103	2.05	0.137	0.129	9.6	0.43	3754	5191	265	77	D	F	0.1018	242.9	2.22	2213	13.8	226.9	2.07	1451	15.8	189.5	1.73	1045	16.9	144.5	1.32
105	115	2232	14.3	13.7	13.3	15.2	16.1	2.02	4.3	9.1	0.32	3.39	35.7	102	2.12	0.139	0.131	9.5	0.43	3731	5191	260	76	D	F	0.1114	248.6	2.17	2091	14.2	233.6	2.04	1445	16.1	200.2	1.75	1081	17.1	157.9	1.38
110	120	2092	14.8	14.1	13.6	15.5	16.4	2.08	4.4	9.3	0.32	3.58	35.8	101	2.19	0.141	0.133	9.3	0.43	3705	5191	254	75	D	F	0.1212	253.6	2.12	1977	14.6	239.5	2.00	1428	16.4	209.6	1.75	1103	17.4	169.9	1.42
115	125	1965	15.2	14.6	13.9	15.8	16.7	2.13	4.5	9.5	0.32	3.76	35.8	100	2.26	0.143	0.135	9.2	0.43	3677	5191	249	74	D	F	0.1312	257.9	2.07	1871	15.0	244.5	1.96	1402	16.7	217.6	1.75	1114	17.7	180.7	1.45
120	130	1850	15.7	15.0	14.1	16.1	17.0	2.18	4.6	9.6	0.32	3.95	35.8	99	2.32	0.145	0.137	9.0	0.43	3648	5191	244	73	D	F	0.1414	261.6	2.02	1772	15.4	248.9	1.92	1371	17.0	224.5	1.73	1116	17.9	190.2	1.47
125	135	1745	16.1	15.5	14.4	16.3	17.3	2.23	4.7	9.8	0.32	4.13	35.7	97	2.39	0.147	0.139	8.9	0.43	3619	5191	240	72	D	F	0.1517	264.8	1.97	1680	15.9	252.6	1.88	1336	17.3	230.4	1.71	1110	18.2	198.6	1.48
130	140	1649	16.6	15.9	14.6	16.6	17.5	2.28	4.8	9.9	0.32	4.32	35.6	96	2.46	0.149	0.141	8.7	0.42	3589	5191	235	71	D	F	0.1621	267.3	1.92	1595	16.2	255.7	1.83	1298	17.7	235.4	1.69	1098	18.5	205.9	1.48
135	145	1562	17.0	16.3	14.8	16.8	17.7	2.33	4.9	10.1	0.32	4.51	35.5	95	2.53	0.151	0.143	8.6	0.42	3559	5191	230	70	D	F	0.1726	269.6	1.86	1516	16.6	258.4	1.79	1260	18.0	239.7	1.66	1083	18.8	212.4	1.47
140	150	1482	17.4	16.7	15.1	17.0	17.9	2.38	5.0	10.2	0.32	4.69	35.4	94	2.60	0.153	0.145	8.5	0.42	3529	5191	226	70	C	F	0.1831	271.3	1.81	1443	17.0	260.6	1.74	1220	18.3	243.3	1.63	1064	19.1	218.0	1.46
145	155	1409	17.8	17.1	15.3	17.2	18.1	2.42	5.0	10.3	0.32	4.88	35.3	93	2.66	0.155	0.147	8.3	0.42	3500	5191	222	69	C	F	0.1936	272.8	1.76	1376	17.4	262.4	1.70	1182	18.6	246.4	1.59	1042	19.4	222.8	1.44
150	160	1342	18.3	17.5	15.5	17.4	18.3	2.47	5.1	10.4	0.33	5.06	35.1	92	2.73	0.157	0.149	8.2	0.41	3472	5191	218	68	C	F	0.2042	274.0	1.72	1313	17.8	264.0	1.65	1144	18.9	249.0	1.56	1020	19.6	227.0	1.42
155	165	1280	18.6	17.9	15.6	17.6	18.5	2.51	5.2	10.5	0.33	5.24	35.0	91	2.80	0.159	0.151	8.1	0.41	3444	5191	214	67	C	F	0.2147	274.8	1.67	1255	18.2	265.1	1.61	1106	19.2	251.0	1.53	996	19.9	230.6	1.40
160	170	1223	19.0	18.3	15.8	17.7	18.7	2.56	5.3	10.5	0.33	5.43	34.8	90	2.86	0.161	0.153	8.0	0.41	3417	5191	210	66	C	F	0.2252	275.4	1.62	1202	18.5	266.0	1.57	1070	19.5	252.7	1.49	971	20.2	233.6	1.38
165	175	1171	19.4	18.7	16.0	17.9	18.9	2.60	5.4	10.6	0.33	5.61	34.7	89	2.92	0.163	0.155	7.9	0.40	3392	5191	207	66	C	F	0.2357	276.0	1.58	1152	18.9	266.8	1.53	1036	19.9	254.2	1.46	948	20.5	236.4	1.35
170	180	1122	19.8	19.0	16.1	18.0	19.0	2.64	5.4	10.7	0.33	5.79	34.5	88	2.99	0.165	0.157	7.8	0.40	3367	5191	203	65	C	F	0.2461	276.1	1.54	1106	19.2	267.2	1.49	1003	20.2	255.2	1.42	923	20.8	238.5	1.33
175	185	1077	20.2	19.4	16.3	18.2	19.2	2.68	5.5	10.7	0.34	5.97	34.4	87	3.05	0.167	0.159	7.7	0.40	3343	5191	200	64	C	F	0.2565	276.2	1.50	1063	19.6	267.5	1.45	971	20.5	256.0	1.39	899	21.1	240.3	1.30
180	190	1036	20.5	19.7	16.4	18.3	19.3	2.72	5.6	10.8	0.34	6.14	34.2	86	3.11	0.169	0.161	7.6	0.40	3321	5191	197	64	C	F	0.2667	276.3	1.46	1023	19.9	267.8	1.41	941	20.8	256.8	1.35	877	21.3	242.1	1.28

Table A34. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 11 m Initial Density = 10000 stems/ha																																								
5	15	9903	1.0	0.9	1.9	2.3	2.4	0.68	1.3	0.4	0.75	0.36	0.8	229	1.00	0.437	0.420	0.8	0.01	1231	5639	61	36	B	F	0.0001	0.7	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	9668	2.0	1.9	2.8	3.4	3.5	0.74	1.7	0.9	0.65	0.43	3.1	155	1.02	0.301	0.287	2.2	0.04	1562	5639	105	41	B	F	0.0004	4.2	0.21	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	9311	2.9	2.7	3.6	4.4	4.7	0.81	1.9	1.4	0.57	0.52	6.2	138	1.04	0.233	0.221	3.6	0.07	1917	5639	148	48	B	F	0.0012	11.6	0.47	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	8860	3.8	3.5	4.5	5.5	5.8	0.88	2.2	2.0	0.50	0.62	9.8	132	1.06	0.194	0.184	5.1	0.11	2269	5639	186	55	C	F	0.0026	22.8	0.77	7	8.1	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	8343	4.5	4.2	5.3	6.4	6.8	0.95	2.3	2.7	0.46	0.73	13.4	128	1.09	0.170	0.161	6.3	0.16	2599	5639	219	61	C	F	0.0045	37.4	1.08	158	8.2	2.0	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	40	7789	5.3	5.0	6.0	7.3	7.8	1.03	2.5	3.3	0.42	0.86	17.0	125	1.13	0.155	0.146	7.4	0.20	2893	5639	247	67	C	F	0.0070	54.4	1.37	677	8.3	9.8	0.25	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	45	7225	6.0	5.6	6.7	8.2	8.7	1.10	2.6	3.9	0.40	0.99	20.3	123	1.18	0.144	0.135	8.3	0.24	3146	5639	268	71	D	F	0.0101	72.9	1.64	1426	8.5	24.6	0.55	5	12.6	0.2	0.00	0	0.0	0.0	0.00
40	50	6671	6.7	6.3	7.4	8.9	9.5	1.17	2.7	4.4	0.38	1.13	23.2	121	1.22	0.137	0.129	9.0	0.28	3357	5639	284	75	D	F	0.0138	92.0	1.86	2142	8.8	44.1	0.89	29	12.8	1.6	0.03	2	14.1	0.1	0.00
45	55	6139	7.3	6.9	8.1	9.7	10.3	1.24	2.9	4.9	0.36	1.27	25.8	120	1.28	0.132	0.124	9.6	0.31	3528	5639	295	78	D	F	0.0181	111.0	2.03	2688	9.1	65.8	1.21	99	12.9	5.9	0.11	10	14.6	0.7	0.01
50	60	5639	8.0	7.5	8.6	10.3	11.0	1.31	3.0	5.4	0.35	1.42	28.1	118	1.33	0.129	0.121	9.9	0.34	3662	5639	302	80	D	F	0.0230	129.5	2.17	3038	9.5	87.8	1.47	227	13.1	14.8	0.25	37	14.7	2.7	0.05
55	65	5177	8.6	8.1	9.2	10.9	11.7	1.38	3.1	5.9	0.34	1.58	30.0	116	1.39	0.127	0.119	10.2	0.37	3764	5639	306	82	D	F	0.0284	147.0	2.28	3222	9.8	109.1	1.69	406	13.3	28.4	0.44	93	14.8	7.3	0.11
60	70	4752	9.2	8.7	9.7	11.5	12.3	1.45	3.2	6.3	0.33	1.73	31.5	115	1.45	0.126	0.118	10.4	0.38	3838	5639	307	82	D	F	0.0344	163.3	2.35	3280	10.2	129.0	1.85	611	13.5	46.0	0.66	182	15.0	15.2	0.22
65	75	4367	9.8	9.3	10.2	12.1	12.8	1.51	3.3	6.7	0.33	1.90	32.8	113	1.51	0.126	0.118	10.5	0.40	3889	5639	306	83	D	F	0.0408	178.3	2.39	3253	10.6	147.4	1.98	819	13.7	66.2	0.89	300	15.2	26.8	0.36
70	80	4017	10.4	9.8	10.7	12.5	13.4	1.58	3.4	7.1	0.32	2.07	33.8	112	1.58	0.126	0.118	10.5	0.41	3921	5639	304	83	D	F	0.0478	191.9	2.41	3168	11.0	163.9	2.06	1007	14.0	87.3	1.10	433	15.4	41.2	0.52
75	85	3702	10.9	10.4	11.1	13.0	13.8	1.64	3.6	7.4	0.32	2.24	34.7	111	1.64	0.126	0.119	10.5	0.42	3938	5639	301	83	D	F	0.0552	204.2	2.41	3050	11.4	178.8	2.11	1166	14.2	108.1	1.28	570	15.6	57.7	0.68
80	90	3418	11.5	10.9	11.5	13.4	14.3	1.70	3.7	7.7	0.32	2.41	35.3	109	1.71	0.127	0.120	10.4	0.43	3941	5639	296	82	D	F	0.0629	215.1	2.40	2913	11.9	191.9	2.14	1291	14.5	127.9	1.43	701	15.8	75.4	0.84
85	95	3163	12.0	11.4	11.9	13.8	14.7	1.76	3.8	8.0	0.31	2.58	35.8	108	1.78	0.129	0.121	10.3	0.44	3935	5639	291	82	D	F	0.0711	224.9	2.38	2768	12.3	203.6	2.15	1382	14.7	146.1	1.54	817	16.0	93.2	0.99
90	100	2934	12.5	12.0	12.2	14.2	15.1	1.82	3.9	8.3	0.31	2.76	36.2	107	1.85	0.130	0.122	10.2	0.44	3921	5639	286	81	D	F	0.0796	233.6	2.35	2623	12.7	214.0	2.15	1443	15.0	162.6	1.63	914	16.2	110.5	1.11
95	105	2727	13.0	12.5	12.6	14.6	15.5	1.88	4.0	8.6	0.31	2.94	36.4	105	1.91	0.131	0.124	10.1	0.44	3901	5639	281	80	D	F	0.0884	241.2	2.31	2479	13.1	222.9	2.13	1478	15.3	177.2	1.69	993	16.5	127.0	1.21
100	110	2541	13.5	12.9	12.9	14.9	15.8	1.94	4.1	8.8	0.31	3.12	36.6	104	1.98	0.133	0.125	9.9	0.44	3876	5639	275	79	D	F	0.0975	247.8	2.26	2342	13.6	230.8	2.11	1493	15.6	190.1	1.73	1052	16.7	142.3	1.30
105	115	2373	14.0	13.4	13.2	15.2	16.1	1.99	4.2	9.0	0.31	3.30	36.7	103	2.05	0.135	0.127	9.8	0.44	3848	5639	270	78	D	F	0.1069	253.6	2.21	2212	14.0	237.7	2.07	1491	15.9	201.3	1.76	1095	17.0	156.2	1.36
110	120	2221	14.5	13.9	13.5	15.5	16.4	2.05	4.3	9.2	0.31	3.48	36.7	102	2.12	0.137	0.129	9.6	0.44	3817	5639	264	77	D	F	0.1164	258.5	2.16	2090	14.4	243.6	2.04	1476	16.2	211.0	1.76	1123	17.3	168.8	1.41
115	125	2083	15.0	14.3	13.8	15.8	16.7	2.10	4.4	9.4	0.31	3.66	36.7	100	2.19	0.139	0.131	9.5	0.44	3785	5639	258	76	D	F	0.1261	262.7	2.11	1976	14.8	248.6	2.00	1452	16.5	219.3	1.76	1138	17.5	180.0	1.44
120	130	1959	15.4	14.8	14.0	16.0	17.0	2.15	4.5	9.6	0.31	3.84	36.6	99	2.26	0.141	0.133	9.3	0.44	3752	5639	253	75	D	F	0.1360	266.5	2.06	1870	15.2	253.0	1.95	1422	16.8	226.6	1.75	1143	17.8	190.0	1.47
125	135	1846	15.9	15.2	14.3	16.3	17.3	2.20	4.6	9.7	0.32	4.03	36.6	98	2.33	0.143	0.135	9.2	0.44	3718	5639	248	74	D	F	0.1460	269.6	2.00	1772	15.6	256.8	1.91	1388	17.2	232.8	1.73	1140	18.1	198.8	1.48
130	140	1743	16.3	15.6	14.5	16.5	17.5	2.25	4.7	9.9	0.32	4.21	36.5	97	2.40	0.145	0.137	9.0	0.43	3685	5639	243	73	D	F	0.1561	272.1	1.95	1681	16.0	259.9	1.86	1350	17.5	238.1	1.71	1130	18.3	206.5	1.48
135	145	1649	16.7	16.1	14.7	16.7	17.7	2.30	4.8	10.0	0.32	4.39	36.3	96	2.46	0.147	0.139	8.9	0.43	3651	5639	238	72	D	F	0.1663	274.3	1.90	1597	16.4	262.6	1.82	1310	17.8	242.5	1.68	1116	18.6	213.3	1.48
140	150	1563	17.2	16.5	14.9	16.9	17.9	2.35	4.9	10.1	0.32	4.57	36.2	95	2.53	0.149	0.141	8.7	0.43	3618	5639	233	71	D	F	0.1766	276.0	1.85	1519	16.8	264.7	1.77	1270	18.1	246.2	1.65	1098	18.9	219.1	1.46
145	155	1484	17.6	16.9	15.1	17.1	18.1	2.39	5.0	10.2	0.32	4.75	36.0	94	2.60	0.151	0.143	8.6	0.43	3585	5639	229	71	D	F	0.1869	277.3	1.79	1446	17.2	266.5	1.72	1230	18.4	249.3	1.61	1076	19.2	224.1	1.45
150	160	1412	18.0	17.3	15.3	17.3	18.3	2.44	5.0	10.3	0.32	4.93	35.8	93	2.66	0.154	0.145	8.5	0.42	3554	5639	224	70	C	F	0.1972	278.4	1.74	1380	17.5	267.9	1.68	1190	18.7	251.9	1.58	1054	19.5	228.5	1.43
155	165	1346	18.4	17.6	15.5	17.5	18.5	2.48	5.1	10.4	0.32	5.11	35.7	92	2.73	0.156	0.147	8.3	0.42	3523	5639	220	69	C	F	0.2074	279.2	1.70	1318	17.9	269.1	1.64	1152	19.0	254.1	1.54	1030	19.7	232.3	1.41
160	170	1285	18.8	18.0	15.7	17.7	18.7	2.53	5.2	10.5	0.33	5.29	35.5	91	2.79	0.158	0.149	8.2	0.42	3494	5639	216	68	C	F	0.2177	279.8	1.65	1261	18.3	270.0	1.59	1114	19.3	255.9	1.51	1005	20.0	235.5	1.39
165	175	1229	19.1	18.4	15.8	17.8	18.9	2.57	5.3	10.6	0.33	5.47	35.3	90	2.85	0.160	0.151	8.1	0.41	3465	5639	213	67	C	F	0.2280	280.2	1.61	1208	18.6	270.7	1.55	1079	19.6	257.4	1.47	981	20.3	238.3	1.37
170	180	1177	19.5	18.8	16.0	18.0	19.0	2.61	5.4	10.6	0.33	5.65	35.2	89	2.91	0.162	0.153	8.0	0.41	3438	5639	209	67	C	F	0.2381	280.3	1.56	1159	19.0	271.1	1.51	1044	19.9	258.5	1.44	956	20.6	240.6	1.34
175	185	1129	19.9	19.1	16.1	18.1	19.2	2.65	5.4	10.7	0.33	5.83	35.0	88	2.98	0.164	0.155	7.9	0.41	3412	5639	206	66	C	F	0.2484	280.4	1.52	1113	19.3	271.3	1.47	1011	20.2	259.3	1.40	932	20.8	242.6	1.31
180	190	1084	20.2	19.5	16.3	18.3	19.3	2.69	5.5	10.7	0.33	6.00	34.8	87	3.04	0.166	0.157	7.7	0.40	3387	5639	202	65	C	F	0.2584	280.1	1.48	1070	19.6	271.3	1.43	979	20.5	259.8	1.37	907	21.1	244.1	1.29
SI = 11 m Initial Density = 15000 stems/ha																																								
5	15	14830	0.9	0.8	1.8	2.3	2.4	0.67	1.2	0.5	0.72	0.35	0.9	260	0.82	0.358	0.343	0.9	0.01	1791	7764	84	53	C	F	0.0001	0.8	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	14417	1.8	1.7	2.7	3.4	3.5	0.72	1.5	0.9	0.62	0.41	3.6	169	0.83	0.247	0.235	2.7	0.04	2200	7764	140	59	C	F	0.0003	4.8	0.25	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	13793	2.6	2.4	3.5	4.4	4.7	0.78	1.8	1.5	0.54	0.49	7.4	148	0.85	0.193	0.182	4.6	0.09	2624	7764	194	67	C	F	0.0010	13.2	0.54	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	13011	3.4	3.2	4.3	5.4	5.8	0.85	1.9	2.0	0.48	0.57	11.7	140	0.88	0.161	0.152	6.3	0.14	3030	7764	243	74	D	F	0.0020	26.0	0.88	1	8.1	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	12129	4.1	3.8	5.1	6.4	6.8	0.91	2.1	2.6	0.43	0.67	16.0	135	0.91	0.142	0.133	7.9	0.19	3396	7764	283	81	D	F	0.0035	42.4	1.23	61	8.0	0.7	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	40	11202	4.8	4.5	5.8	7.3	7.8	0.98	2.2	3.2	0.40	0.77	20.1	132	0.94	0.130	0.121	9.2	0.24	3711	7764	314	87	D	F	0.0055	61.4	1.55	414	8.2	5.6	0.14	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	45	10275	5.4	5.1	6.5	8.1	8.7	1.04	2.3	3.8	0.37	0.89	23.8	129	0.99	0.122	0.114	10.2	0.29	3969	7764	338	91	D	F	0.0080	81.9	1.84	1161	8.3	18.1	0.41	1	12.5	0.0	0.00	0	0.0	0.0	0.00
40	50	9380	6.1	5.7	7.1	8.9	9.5	1.11	2.5	4.3	0.35	1.01	27.2	127	1.03	0.116	0.108	11.0	0.33	4173	7764	355	94	D	F	0.0110	102.9	2.08	2091	8.5	37.6	0.76	7	12.6	0.4	0.01	0	0.0	0.0	0.00
45	55	8539	6.7	6.3	7.7	9.6	10.3	1.18	2.6	4.8	0.34	1.13	30.0	125	1.08	0.113	0.105	11.6	0.37	4329	7764	365	97	D	F	0.0145	123.6	2.26	2808	8.8	60.2	1.10	37	12.7	2.2	0.04	2	14.4	0.1	0.00
50	60	7764	7.3	6.9	8.3	10.2	11.0	1.24	2.7	5.3	0.33	1.26	32.4	123	1.13	0.111	0.103	12.0	0.40	4441	7764	371	98	D	F	0.0185	143.5	2.41	3460	9.0	85.4	1.43	114	12.9	7.1	0.12	11	14.5	0.8	0.01
55	65	7057	7.9	7.5	8.8	10.8	11.7	1.30	2.8	5.7	0.32	1.40	34.4	121	1.19	0.110	0.102	12.3	0.43	4517	7764	373	99	D	F	0.0230	162.1	2.51	3772	9.4	109.1	1.69	247	13.1	16.6	0.26	37	14.6	2.8	0.04
60	70	6420	8.5	8.0	9.3	11.4	12.3	1.37	2.9	6.2	0.31	1.54	36.0	119	1.25	0.109	0.102	12.4	0.45	4563	7764	372	99	D	F	0.0279	179.4	2.58	3919	9.7	131.5	1.89	432	13.2	30.9	0.44	92	14.8	7.3	0.10
65	75	5849	9.0	8.5	9.8	11.9	12.8	1.43	3.0	6.5	0.31	1.69	37.3	118	1.31	0.110	0.102	12.4	0.46	4585	7764	368	99	D	F	0.0334	195.1	2.62	3939	10.1	152.1	2.04	644	13.4	49.2	0.66	178	14.9	15.1	0.20
70	80	5339	9.6	9.1	10.2	12.4	13.4	1.49	3.1	6.9	0.31	1.84	38.3	116	1.37	0.110	0.102	12.4	0.48	4588	7764	363	98	D	F	0.0392	209.4	2.63	3876	10.5	170.8	2.15	861	13.6	70.0	0.88	292	15.1	26.3	0.33
75	85	4884	10.1	9.6	10.6	12.9	13.8	1.55	3.2	7.2	0.30	1.99	39.1	114	1.43	0.111	0.103	12.3	0.48	4576	7764	357	97	D	F	0.0455	222.1	2.63	3755	10.8	187.4	2.22	1062	13.9	91.9	1.09	425	15.3	40.5	0.48
80	90	4479	10.6	10.1	11.0	13.3	14.3	1.61	3.3	7.6	0.30	2.14	39.6	113	1.49	0.112	0.105	12.2	0.49	4552	7764	350	96	D	F	0.0521	233.4	2.61	3604	11.2	202.0	2.26	1237	14.1	113.7	1.27	566	15.5	57.0	0.64
85	95	4119	11.1	10.6	11.4	13.7	14.7	1.67	3.5	7.9	0.30	2.30	40.0	111	1.56	0.114	0.106	12.0	0.50	4519	7764	343	95	D	F	0.0591	243.4	2.57	3433	11.6	214.9	2.27	1377	14.3	134.4	1.42	702	15.7	74.7	0.79
90	100	3797	11.6	11.1	11.7	14.1	15.1	1.72	3.6	8.1	0.30	2.46	40.3	110	1.62	0.115	0.107	11.8	0.50	4479	7764	335	93	D	F	0.0664	252.2	2.53	3258	12.0	226.2	2.27	1525	14.5	155.9	1.57	828	15.9	92.8	0.93
95	105	3510	12.1	11.6	12.1	14.4	15.5	1.78	3.7	8.4	0.30	2.62	40.5	109	1.69	0.117	0.109	11.6	0.50	4435	7764	327	92	D	F	0.0740	259.8	2.48	3080	12.4	236.0	2.26	1596	14.8	173.1	1.66	935	16.1	110.7	1.06
100	110	3253	12.6	12.0	12.4	14.7	15.8	1.83	3.8	8.6	0.30	2.78	40.5	107	1.75	0.119	0.111	11.4	0.50	4388	7764	320	91	D	F	0.0819	266.4	2.43	2907	12.8	244.5	2.23	1639	15.0	188.3	1.72	1026	16.3	127.7	1.17
105	115	3023	13.1	12.5	12.7	15.0	16.1	1.88	3.9	8.8	0.30	2.95	40.5	106	1.82	0.121	0.113	11.2	0.50	4338	7764	312	89	D	F	0.0900	272.1	2.37	2746	13.2	251.8	2.20	1662	15.3	201.7	1.76	1099	16.5	143.7	1.25
110	120	2817	13.5	12.9	12.9	15.3	16.4	1.94	4.0	9.0	0.30	3.11	40.5	105	1.88	0.123	0.115	11.0	0.49	4287	7764	305	88	D	F	0.0983	277.0	2.32	2591	13.6	258.1	2.16	1664	15.6	213.4	1.78	1153	16.7	158.4	1.32
115	125	2631	14.0	13.4	13.2	15.6	16.7	1.99	4.1	9.2	0.30	3.28	40.3	104	1.95	0.125	0.117	10.8	0.49	4236	7764	297	86	D	F	0.1068	281.1	2.26	2446	13.9	263.4	2.11	1653	15.9	223.4	1.79	1191	17.0	171.8	1.38
120	130	2463	14.4	13.8	13.4	15.9	17.0	2.04	4.2	9.4	0.30	3.44	40.2	102	2.01	0.127	0.119	10.6	0.49	4184	7764	290	85	D	F	0.1156	284.6	2.20	2310	14.3	268.0	2.07	1629	16.1	232.1	1.79	1215	17.2	183.7	1.42
125	135	2311	14.8	14.2	13.7	16.1	17.3	2.09	4.3	9.6	0.30	3.61	40.0	101	2.08	0.129	0.121	10.4	0.48	4133	7764	283	83	D	F	0.1244	287.5	2.14	2185	14.7	271.8	2.02	1599	16.4	239.4	1.78	1229	17.5	194.4	1.44
130	140	2174	15.3	14.6	13.9	16.3	17.5	2.13	4.4	9.7	0.30	3.78	39.8	100	2.14	0.131	0.123	10.2	0.48	4083	7764	277	82	D	F	0.1333	289.9	2.08	2066	15.1	275.0	1.97	1562	16.7	245.7	1.76	1231	17.7	203.8	1.46
135	145	2049	15.7	15.0	14.1	16.5	17.7	2.18	4.4	9.8	0.31	3.95	39.6	99	2.21	0.134	0.125	10.0	0.48	4034	7764	270	81	D	F	0.1424	291.8	2.02	1960	15.4	277.6	1.92	1523	17.0	251.0	1.74	1227	18.0	212.0	1.47
140	150	1935	16.1	15.4	14.3	16.7	17.9	2.23	4.5	10.0	0.31	4.11	39.3	98	2.27	0.136	0.127	9.8	0.47	3986	7764	264	80	D	F	0.1516	293.3	1.96	1859	15.8	279.8	1.87	1480	17.3	255.5	1.71	1216	18.2	219.3	1.47
145	155	1832	16.5	15.8	14.5	16.9	18.1	2.27	4.6	10.1	0.31	4.28	39.1	97	2.34	0.138	0.129	9.6	0.47	3940	7764	259	78	D	F	0.1607	294.4	1.90	1768	16.2	281.5	1.82	1437	17.6	259.2	1.68	1202	18.5	225.6	1.46
150	160	1737	16.9	16.2	14.7	17.1	18.3	2.31	4.7	10.2	0.31	4.45	38.8	96	2.40	0.140	0.131	9.5	0.46	3895	7764	253	77	D	F	0.1699	295.2	1.85	1683	16.5	282.9	1.77	1394	17.9	262.2	1.64	1184	18.7	231.0	1.45
155	165	1650	17.3	16.6	14.9	17.3	18.5	2.36	4.8	10.3	0.31	4.61	38.6	95	2.46	0.142	0.133	9.3	0.46	3852	7764	248	76	D	F	0.1792	295.7	1.80	1602	16.9	283.9	1.73	1349	18.2	264.7	1.61	1161	19.0	235.7	1.43
160	170	1570	17.6	16.9	15.0	17.5	18.7	2.40	4.9	10.3	0.32	4.78	38.3	94	2.52	0.144	0.135	9.1	0.45	3810	7764	243	75	D	F	0.1885	296.0	1.75	1528	17.2	284.6	1.68	1305	18.4	266.7	1.57	1137	19.2	239.7	1.41
165	175	1497	18.0	17.3	15.2	17.6	18.9	2.44	4.9	10.4	0.32	4.95	38.1	93	2.58	0.147	0.137	9.0	0.45	3770	7764	238	74	D	F	0.1978	296.1	1.70	1459	17.6	285.0	1.63	1262	18.7	268.3	1.54	1111	19.5	243.1	1.39
170	180	1429	18.4	17.6	15.3	17.8	19.0	2.48	5.0	10.5	0.32	5.11	37.8	92	2.65	0.149	0.139	8.8	0.44	3732	7764	234	73	D	F	0.2071	295.9	1.65	1400	17.9	285.2	1.59	1224	19.0	269.6	1.50	1088	19.8	246.0	1.37
175	185	1366	18.7	18.0	15.5	17.9	19.2	2.52	5.1	10.5	0.32	5.28	37.6	91	2.71	0.151	0.141	8.7	0.44	3695	7764	229	72	D	F	0.2164	295.6	1.60	1340	18.2	285.3	1.55	1185	19.3	270.5	1.47	1062	20.0	248.5	1.35
180	190	1309	19.1	18.3	15.6	18.1	19.3	2.56	5.2	10.6	0.32	5.44	37.4	90	2.76	0.153	0.143	8.6	0.44	3660	7764	225	71	D	F	0.2255	295.2	1.56	1284	18.6	285.1	1.50	1141	19.6	270.8	1.43	1036	20.3	250.5	1.32

Table A35. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume) N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	Util. std. = 8/6 N	D	V/ha	Mai	Util. std. = 13/7 N	D	V/ha	Mai	Util. std = 15/10 N	D	V/ha	Mai
SI = 11 m Initial Density = 20000 stems/ha																																								
5	15	19750	0.8	0.7	1.8	2.3	2.4	0.67	1.2	0.5	0.70	0.35	0.9	287	0.71	0.312	0.297	1.0	0.01	2340	9752	105	69	C	F	0.0000	0.8	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	19142	1.6	1.5	2.6	3.4	3.5	0.71	1.4	0.9	0.60	0.40	4.1	179	0.72	0.216	0.204	3.2	0.05	2812	9752	172	77	D	F	0.0003	5.2	0.27	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	18226	2.4	2.3	3.4	4.4	4.7	0.77	1.6	1.5	0.52	0.46	8.3	156	0.74	0.168	0.158	5.4	0.10	3287	9752	236	85	D	F	0.0008	14.4	0.59	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	17086	3.1	2.9	4.2	5.4	5.8	0.82	1.8	2.0	0.46	0.54	13.1	146	0.77	0.141	0.132	7.4	0.16	3729	9752	292	92	D	F	0.0017	28.3	0.96	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	15814	3.8	3.6	4.9	6.4	6.8	0.88	1.9	2.6	0.41	0.63	17.9	140	0.80	0.125	0.117	9.2	0.22	4114	9752	338	99	D	F	0.0029	46.1	1.33	23	8.0	0.3	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	40	14494	4.4	4.2	5.6	7.2	7.8	0.95	2.0	3.2	0.38	0.72	22.5	136	0.83	0.115	0.107	10.7	0.28	4433	9752	373	104	D	F	0.0046	66.5	1.68	249	8.0	3.2	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	45	13192	5.1	4.8	6.3	8.1	8.7	1.01	2.2	3.7	0.36	0.82	26.6	133	0.87	0.108	0.100	11.8	0.33	4684	9752	398	108	D	F	0.0067	88.4	1.98	901	8.2	13.0	0.29	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	50	11951	5.7	5.3	6.9	8.8	9.5	1.07	2.3	4.3	0.34	0.93	30.2	131	0.91	0.104	0.096	12.7	0.38	4873	9752	415	111	D	F	0.0093	110.6	2.23	1883	8.3	31.1	0.63	2	12.5	0.1	0.00	0	0.0	0.0	0.00
45	55	10801	6.3	5.9	7.5	9.5	10.3	1.13	2.4	4.7	0.33	1.04	33.2	128	0.96	0.101	0.094	13.3	0.42	5006	9752	425	113	D	F	0.0123	132.4	2.43	2748	8.6	53.6	0.98	15	12.6	0.8	0.01	0	0.0	0.0	0.00
50	60	9752	6.8	6.5	8.0	10.2	11.0	1.19	2.5	5.2	0.32	1.16	35.7	126	1.01	0.100	0.092	13.7	0.45	5092	9752	429	113	D	F	0.0157	153.2	2.57	3602	8.8	80.1	1.34	57	12.8	3.5	0.06	3	14.4	0.2	0.00
55	65	8808	7.4	7.0	8.5	10.8	11.7	1.25	2.6	5.6	0.31	1.29	37.8	124	1.07	0.099	0.091	13.9	0.48	5141	9752	429	113	D	F	0.0196	172.6	2.67	4070	9.1	105.5	1.63	151	12.9	9.8	0.15	16	14.5	1.1	0.02
60	70	7965	7.9	7.5	9.0	11.3	12.3	1.31	2.7	6.0	0.30	1.42	39.4	122	1.12	0.099	0.091	14.0	0.50	5159	9752	425	113	D	F	0.0239	190.5	2.74	4331	9.4	129.8	1.87	300	13.1	20.7	0.30	46	14.6	3.6	0.05
65	75	7217	8.5	8.0	9.5	11.8	12.8	1.37	2.8	6.4	0.30	1.55	40.7	120	1.18	0.099	0.092	14.0	0.51	5154	9752	419	112	D	F	0.0286	206.7	2.77	4431	9.7	152.3	2.04	495	13.2	36.3	0.49	106	14.8	8.6	0.12
70	80	6555	9.0	8.5	9.9	12.3	13.4	1.43	2.9	6.8	0.30	1.68	41.7	119	1.24	0.100	0.092	13.9	0.52	5130	9752	412	110	D	F	0.0338	221.3	2.78	4412	10.1	172.7	2.17	713	13.4	55.5	0.70	195	14.9	16.9	0.21
75	85	5969	9.5	9.0	10.3	12.8	13.8	1.49	3.0	7.1	0.29	1.82	42.4	117	1.29	0.101	0.094	13.8	0.53	5092	9752	404	109	D	F	0.0393	234.4	2.77	4312	10.4	190.8	2.26	934	13.6	76.9	0.91	312	15.1	28.4	0.34
80	90	5450	10.0	9.5	10.6	13.2	14.3	1.54	3.1	7.4	0.29	1.97	42.9	116	1.35	0.103	0.095	13.6	0.54	5044	9752	395	107	D	F	0.0451	245.9	2.75	4161	10.8	206.8	2.31	1138	13.8	99.2	1.11	445	15.2	42.8	0.48
85	95	4992	10.5	10.0	11.0	13.6	14.7	1.60	3.2	7.7	0.29	2.11	43.3	114	1.42	0.104	0.096	13.3	0.54	4988	9752	385	105	D	F	0.0513	256.0	2.71	3982	11.1	220.8	2.33	1316	14.0	121.2	1.28	586	15.4	59.3	0.63
90	100	4585	11.0	10.5	11.3	14.0	15.1	1.65	3.3	8.0	0.29	2.26	43.5	113	1.48	0.106	0.098	13.1	0.54	4928	9752	375	103	D	F	0.0578	264.9	2.66	3788	11.5	232.9	2.34	1508	14.2	144.9	1.46	724	15.6	77.0	0.77
95	105	4224	11.5	10.9	11.6	14.3	15.5	1.70	3.4	8.2	0.29	2.41	43.6	111	1.54	0.108	0.099	12.9	0.54	4863	9752	366	102	D	F	0.0645	272.6	2.61	3589	11.9	243.5	2.33	1615	14.4	164.1	1.57	851	15.8	95.1	0.91
100	110	3902	11.9	11.4	11.9	14.6	15.8	1.76	3.5	8.4	0.29	2.56	43.5	110	1.60	0.110	0.101	12.6	0.54	4797	9752	356	100	D	F	0.0716	279.2	2.55	3393	12.2	252.6	2.31	1691	14.7	181.3	1.65	962	16.0	112.9	1.03
105	115	3615	12.4	11.8	12.2	14.9	16.1	1.81	3.6	8.7	0.29	2.71	43.5	109	1.66	0.112	0.103	12.4	0.54	4730	9752	347	98	D	F	0.0788	284.9	2.49	3204	12.6	260.4	2.27	1739	14.9	196.6	1.72	1057	16.2	130.1	1.14
110	120	3358	12.8	12.2	12.5	15.2	16.4	1.86	3.7	8.9	0.29	2.86	43.3	107	1.73	0.114	0.105	12.1	0.53	4662	9752	338	96	D	F	0.0863	289.7	2.42	3024	13.0	267.1	2.23	1765	15.2	210.1	1.76	1135	16.4	146.1	1.22
115	125	3128	13.3	12.7	12.7	15.5	16.7	1.91	3.8	9.1	0.29	3.01	43.1	106	1.79	0.116	0.107	11.8	0.53	4595	9752	329	94	D	F	0.0939	293.8	2.36	2855	13.3	272.8	2.19	1771	15.4	221.7	1.78	1194	16.6	161.0	1.29
120	130	2920	13.7	13.1	13.0	15.7	17.0	1.95	3.9	9.2	0.29	3.17	42.9	105	1.85	0.118	0.109	11.6	0.53	4529	9752	321	93	D	F	0.1018	297.2	2.29	2695	13.7	277.6	2.14	1762	15.7	231.8	1.79	1238	16.8	174.5	1.35
125	135	2734	14.1	13.5	13.2	16.0	17.3	2.00	4.0	9.4	0.30	3.32	42.6	103	1.91	0.120	0.111	11.4	0.52	4465	9752	312	91	D	F	0.1097	300.0	2.23	2547	14.1	281.6	2.09	1741	15.9	240.5	1.79	1268	17.1	186.6	1.39
130	140	2565	14.5	13.9	13.4	16.2	17.5	2.05	4.1	9.5	0.30	3.48	42.4	102	1.97	0.122	0.113	11.1	0.52	4402	9752	305	89	D	F	0.1179	302.3	2.17	2408	14.4	284.9	2.04	1711	16.2	247.8	1.78	1285	17.3	197.5	1.42
135	145	2412	14.9	14.3	13.6	16.4	17.7	2.09	4.2	9.7	0.30	3.63	42.1	101	2.04	0.124	0.115	10.9	0.51	4340	9752	297	88	D	F	0.1261	304.1	2.10	2280	14.8	287.7	1.99	1676	16.5	254.1	1.76	1292	17.5	207.1	1.43
140	150	2273	15.3	14.6	13.8	16.6	17.9	2.14	4.3	9.8	0.30	3.79	41.8	100	2.10	0.126	0.117	10.7	0.51	4281	9752	290	86	D	F	0.1344	305.4	2.04	2162	15.1	289.9	1.94	1635	16.7	259.4	1.73	1291	17.7	215.6	1.44
145	155	2146	15.7	15.0	14.0	16.8	18.1	2.18	4.4	9.9	0.30	3.95	41.5	99	2.16	0.129	0.119	10.5	0.50	4224	9752	283	85	D	F	0.1428	306.4	1.98	2051	15.5	291.6	1.89	1593	17.0	263.7	1.71	1284	18.0	223.0	1.44
150	160	2030	16.1	15.4	14.2	17.0	18.3	2.22	4.5	10.0	0.30	4.10	41.2	98	2.22	0.131	0.121	10.3	0.49	4169	9752	277	83	D	F	0.1513	307.1	1.92	1950	15.8	292.9	1.84	1549	17.3	267.4	1.68	1272	18.2	229.5	1.44
155	165	1925	16.4	15.8	14.3	17.2	18.5	2.26	4.5	10.1	0.31	4.26	40.8	97	2.28	0.133	0.123	10.1	0.49	4115	9752	271	82	D	F	0.1597	307.4	1.87	1854	16.1	293.9	1.79	1502	17.6	270.4	1.64	1254	18.5	235.1	1.43
160	170	1828	16.8	16.1	14.5	17.3	18.7	2.31	4.6	10.2	0.31	4.41	40.5	96	2.34	0.135	0.125	9.9	0.48	4064	9752	265	81	D	F	0.1682	307.5	1.81	1767	16.5	294.6	1.74	1457	17.8	272.8	1.61	1233	18.7	239.9	1.41
165	175	1739	17.2	16.5	14.7	17.5	18.9	2.35	4.7	10.3	0.31	4.57	40.2	95	2.40	0.137	0.127	9.7	0.48	4016	9752	259	79	D	F	0.1768	307.4	1.76	1687	16.8	295.0	1.69	1413	18.1	274.7	1.57	1211	18.9	244.1	1.40
170	180	1657	17.5	16.8	14.8	17.6	19.0	2.39	4.8	10.3	0.31	4.73	39.9	94	2.46	0.139	0.129	9.5	0.47	3969	9752	254	78	D	F	0.1853	307.1	1.71	1611	17.1	295.1	1.64	1368	18.4	276.2	1.54	1187	19.2	247.6	1.38
175	185	1581	17.9	17.1	14.9	17.8	19.2	2.42	4.9	10.4	0.31	4.88	39.6	93	2.51	0.142	0.131	9.4	0.47	3924	9752	249	77	D	F	0.1939	306.6	1.66	1540	17.4	295.0	1.60	1324	18.6	277.3	1.50	1161	19.4	250.6	1.36
180	190	1511	18.2	17.5	15.1	17.9	19.3	2.46	4.9	10.5	0.32	5.04	39.3	92	2.57	0.144	0.133	9.2	0.46	3881	9752	244	76	D	F	0.2025	306.0	1.61	1477	17.7	294.8	1.56	1278	18.9	277.7	1.46	1137	19.7	253.1	1.34
SI = 11 m Initial Density = 30000 stems/ha																																								
5	15	29577	0.6	0.6	1.7	2.3	2.4	0.66	1.1	0.5	0.67	0.35	1.0	334	0.58	0.256	0.243	1.2	0.02	3417	13476	145	102	D	F	0.0000	0.8	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	28541	1.4	1.3	2.5	3.3	3.5	0.70	1.3	1.0	0.57	0.39	4.7	196	0.59	0.178	0.167	3.9	0.06	3989	13476	230	110	D	F	0.0002	5.8	0.30	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	26990	2.1	2.0	3.2	4.4	4.7	0.75	1.5	1.5	0.49	0.44	9.7	167	0.61	0.139	0.130	6.7	0.12	4534	13476	311	119	D	F	0.0006	16.0	0.65	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	25080	2.8	2.6	4.0	5.4	5.8	0.80	1.6	2.0	0.43	0.50	15.4	155	0.63	0.118	0.109	9.2	0.19	5015	13476	379	126	D	F	0.0013	31.5	1.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	22982	3.4	3.2	4.7	6.3	6.8	0.85	1.7	2.6	0.39	0.58	21.0	148	0.66	0.105	0.097	11.4	0.26	5409	13476	433	132	D	F	0.0022	51.2	1.48	3	7.9	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	40	20842	4.0	3.8	5.3	7.2	7.8	0.90	1.8	3.1	0.36	0.65	26.2	143	0.69	0.097	0.089	13.1	0.33	5712	13476	473	137	D	F	0.0035	73.6	1.86	86	7.9	1.0	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	45	18768	4.6	4.3	6.0	8.0	8.7	0.96	1.9	3.6	0.34	0.74	30.8	139	0.73	0.091	0.084	14.4	0.39	5929	13476	500	139	D	F	0.0052	97.3	2.18	501	8.0	6.6	0.15	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	50	16829	5.1	4.8	6.5	8.7	9.5	1.01	2.0	4.1	0.32	0.83	34.8	136	0.77	0.088	0.081	15.4	0.45	6071	13476	516	140	D	F	0.0072	121.2	2.44	1390	8.1	20.5	0.41	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	55	15061	5.7	5.3	7.1	9.4	10.3	1.07	2.1	4.6	0.31	0.93	38.1	134	0.81	0.086	0.079	16.0	0.49	6151	13476	523	140	D	F	0.0096	144.4	2.65	2373	8.3	40.8	0.75	2	12.5	0.1	0.00	0	0.0	0.0	0.00
50	60	13476	6.2	5.9	7.6	10.1	11.0	1.13	2.2	5.0	0.30	1.03	40.8	131	0.86	0.086	0.078	16.4	0.52	6182	13476	524	139	D	F	0.0123	166.3	2.79	3507	8.5	67.5	1.13	15	12.6	0.9	0.02	0	0.0	0.0	0.00
55	65	12071	6.7	6.4	8.1	10.7	11.7	1.18	2.3	5.4	0.29	1.14	42.9	129	0.91	0.085	0.078	16.5	0.55	6175	13476	520	138	D	F	0.0155	186.7	2.89	4244	8.7	94.5	1.46	55	12.7	3.4	0.05	3	14.4	0.2	0.00
60	70	10833	7.2	6.8	8.5	11.2	12.3	1.24	2.4	5.8	0.29	1.25	44.6	127	0.96	0.086	0.078	16.6	0.57	6139	13476	513	136	D	F	0.0190	205.3	2.95	4741	9.0	121.2	1.74	140	12.9	9.3	0.13	12	14.5	0.9	0.01
65	75	9747	7.7	7.3	8.9	11.7	12.8	1.29	2.5	6.2	0.28	1.37	45.8	125	1.01	0.086	0.079	16.5	0.59	6081	13476	503	133	D	F	0.0228	222.1	2.98	5021	9.3	146.5	1.96	278	13.0	19.4	0.26	37	14.6	2.9	0.04
70	80	8796	8.2	7.8	9.3	12.2	13.4	1.34	2.6	6.5	0.28	1.49	46.7	123	1.07	0.087	0.080	16.3	0.60	6009	13476	492	131	D	F	0.0270	237.1	2.98	5128	9.6	169.5	2.13	462	13.2	34.0	0.43	85	14.7	7.0	0.09
75	85	7963	8.7	8.3	9.7	12.6	13.8	1.40	2.7	6.8	0.28	1.61	47.4	121	1.12	0.089	0.081	16.1	0.61	5925	13476	479	128	D	F	0.0315	250.5	2.96	5107	9.9	190.1	2.25	676	13.3	52.3	0.62	162	14.8	14.0	0.17
80	90	7232	9.2	8.7	10.1	13.0	14.3	1.45	2.8	7.1	0.28	1.73	47.8	119	1.18	0.090	0.082	15.8	0.61	5835	13476	467	125	D	F	0.0363	262.2	2.93	4999	10.2	208.3	2.33	900	13.5	73.2	0.82	265	15.0	24.0	0.27
85	95	6590	9.6	9.2	10.4	13.4	14.7	1.50	2.9	7.4	0.28	1.86	48.1	118	1.23	0.092	0.084	15.5	0.61	5740	13476	454	122	D	F	0.0414	272.5	2.88	4833	10.5	224.3	2.37	1115	13.7	95.2	1.01	388	15.1	36.8	0.39
90	100	6025	10.1	9.6	10.7	13.8	15.1	1.55	3.0	7.7	0.28	1.99	48.2	116	1.29	0.093	0.085	15.2	0.61	5643	13476	441	120	D	F	0.0467	281.5	2.83	4633	10.8	238.1	2.39	1366	13.8	120.7	1.21	524	15.3	51.9	0.52
95	105	5527	10.5	10.0	11.0	14.1	15.5	1.60	3.1	7.9	0.28	2.12	48.1	115	1.35	0.095	0.087	14.8	0.61	5545	13476	428	117	D	F	0.0523	289.2	2.77	4417	11.2	250.1	2.39	1530	14.0	142.1	1.36	662	15.4	68.5	0.66
100	110	5085	11.0	10.4	11.3	14.4	15.8	1.65	3.2	8.2	0.28	2.25	48.0	113	1.40	0.097	0.089	14.5	0.60	5447	13476	415	114	D	F	0.0582	295.9	2.70	4193	11.5	260.4	2.38	1660	14.2	162.0	1.48	794	15.6	86.0	0.78
105	115	4693	11.4	10.9	11.5	14.7	16.1	1.70	3.3	8.4	0.28	2.38	47.8	112	1.46	0.099	0.090	14.2	0.60	5351	13476	403	112	D	F	0.0643	301.6	2.63	3971	11.8	269.2	2.35	1761	14.4	180.1	1.57	918	15.8	103.6	0.90
110	120	4344	11.8	11.3	11.8	15.0	16.4	1.74	3.4	8.6	0.28	2.52	47.6	111	1.52	0.101	0.092	13.8	0.60	5256	13476	392	109	D	F	0.0705	306.4	2.56	3755	12.2	276.7	2.31	1831	14.6	196.4	1.64	1027	15.9	120.8	1.01
115	125	4032	12.2	11.7	12.0	15.3	16.7	1.79	3.5	8.8	0.28	2.66	47.3	109	1.57	0.103	0.094	13.5	0.59	5164	13476	380	107	D	F	0.0770	310.4	2.49	3549	12.5	283.0	2.27	1874	14.8	210.9	1.69	1117	16.1	137.3	1.10
120	130	3752	12.6	12.0	12.2	15.5	17.0	1.83	3.6	8.9	0.28	2.79	47.0	108	1.63	0.105	0.096	13.2	0.58	5074	13476	370	105	D	F	0.0836	313.8	2.42	3353	12.8	288.4	2.23	1898	15.1	223.5	1.72	1193	16.3	152.8	1.18
125	135	3501	13.0	12.4	12.5	15.7	17.3	1.88	3.7	9.1	0.28	2.93	46.6	107	1.69	0.107	0.098	12.9	0.58	4987	13476	359	103	D	F	0.0904	316.5	2.35	3169	13.1	292.9	2.18	1903	15.3	234.5	1.74	1254	16.5	167.0	1.24
130	140	3275	13.4	12.8	12.7	16.0	17.5	1.92	3.8	9.2	0.29	3.07	46.2	106	1.75	0.109	0.100	12.6	0.57	4904	13476	350	100	D	F	0.0973	318.6	2.28	2999	13.5	296.6	2.13	1896	15.5	244.0	1.75	1301	16.7	180.1	1.29
135	145	3070	13.8	13.2	12.8	16.2	17.7	1.96	3.9	9.4	0.29	3.21	45.8	104	1.80	0.112	0.102	12.3	0.56	4823	13476	340	98	D	F	0.1043	320.3	2.22	2837	13.8	299.6	2.07	1876	15.8	252.1	1.74	1332	16.9	191.8	1.33
140	150	2885	14.2	13.5	13.0	16.4	17.9	2.01	3.9	9.5	0.29	3.35	45.4	103	1.86	0.114	0.104	12.1	0.56	4745	13476	332	97	D	F	0.1114	321.5	2.15	2689	14.1	302.0	2.02	1849	16.0	259.1	1.73	1355	17.1	202.4	1.35
145	155	2716	14.5	13.9	13.2	16.6	18.1	2.05	4.0	9.6	0.29	3.49	45.0	102	1.92	0.116	0.106	11.8	0.55	4671	13476	323	95	D	F	0.1187	322.3	2.09	2550	14.4	304.0	1.97	1813	16.2	264.9	1.71	1365	17.3	211.8	1.37
150	160	2563	14.9	14.2	13.4	16.7	18.3	2.09	4.1	9.7	0.29	3.63	44.6	101	1.98	0.118	0.108	11.6	0.54	4599	13476	315	93	D	F	0.1259	322.8	2.02	2418	14.7	305.4	1.91	1772	16.5	269.8	1.69	1365	17.5	220.1	1.38
155	165	2423	15.2	14.6	13.5	16.9	18.5	2.13	4.2	9.8	0.29	3.77	44.2	100	2.03	0.120	0.110	11.3	0.54	4531	13476	308	91	D	F	0.1333	323.0	1.96	2300	15.1	306.5	1.86	1731	16.7	273.9	1.66	1363	17.7	227.4	1.38
160	170	2295	15.6	14.9	13.7	17.1	18.7	2.17	4.3	9.9	0.30	3.91	43.8	99	2.09	0.122	0.112	11.1	0.53	4465	13476	300	90	D	F	0.1407	322.9	1.90	2188	15.4	307.2	1.81	1686	17.0	277.3	1.64	1353	18.0	233.8	1.38
165	175	2177	15.9	15.3	13.8	17.2	18.9	2.21	4.4	10.0	0.30	4.05	43.4	98	2.14	0.124	0.114	10.9	0.52	4402	13476	294	88	D	F	0.1482	322.6	1.85	2087	15.7	307.5	1.76	1642	17.2	280.0	1.60	1340	18.2	239.4	1.37
170	180	2069	16.3	15.6	14.0	17.4	19.0	2.24	4.4	10.1	0.30	4.19	43.1	97	2.20	0.127	0.116	10.7	0.52	4342	13476	287	87	D	F	0.1557	322.1	1.79	1990	16.0	307.7	1.71	1596	17.5	282.2	1.57	1322	18.4	244.2	1.36
175	185	1970	16.6	15.9	14.1	17.5	19.2	2.28	4.5	10.1	0.30	4.33	42.7	96	2.25	0.129	0.118	10.5	0.51	4284	13476	281	85	D	F	0.1631	321.4	1.74	1901	16.3	307.5	1.67	1551	17.7	283.8	1.54	1303	18.6	248.4	1.35
180	190	1878	16.9	16.2	14.2	17.7	19.3	2.32	4.6	10.2	0.30	4.47	42.3	95	2.31	0.131	0.120	10.3	0.50	4229	13476	275	84	D	F	0.1707	320.6	1.69	1817	16.6	307.2	1.62	1493	18.0	284.5	1.50	1279	18.8	251.9	1.33

Table A36. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
		SI = 11 m Initial Density = 50000 stems/ha																																						
5	15	49195	0.5	0.5	1.6	2.3	2.4	0.66	1.0	0.6	0.64	0.34	1.0	418	0.45	0.200	0.188	1.4	0.02	5521	20336	218	168	D	F	0.0000	0.8	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	47211	1.2	1.1	2.3	3.3	3.5	0.69	1.1	1.0	0.53	0.37	5.5	222	0.46	0.139	0.130	5.0	0.08	6235	20336	334	176	D	F	0,0001	6.4	0.33	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	44258	1.8	1.7	3.0	4.3	4.7	0.72	1.3	1.5	0.45	0.41	11.7	184	0.48	0.110	0.101	8.6	0.15	6852	20336	439	183	D	F	0.0004	18.0	0.73	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	40674	2.4	2.2	3.7	5.3	5.8	0.77	1.4	2.0	0.40	0.46	18.5	168	0.50	0.093	0.086	11.9	0.24	7341	20336	526	189	D	F	0.0009	35.5	1.20	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	36810	3.0	2.8	4.4	6.2	6.8	0.81	1.5	2.5	0.36	0.52	25.2	159	0.52	0.084	0.076	14.7	0.33	7690	20336	592	192	D	F	0.0016	57.4	1.66	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	40	32952	3.5	3.3	5.0	7.1	7.8	0.86	1.6	3.0	0.33	0.58	31.4	153	0.55	0.078	0.071	16.8	0.41	7910	20336	637	193	D	F	0.0025	82.1	2.07	10	7.8	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	45	29296	4.0	3.7	5.5	7.9	8.7	0.90	1.7	3.5	0.31	0.65	36.7	148	0.58	0.074	0.067	18.4	0.48	8021	20336	664	192	D	F	0.0037	107.9	2.42	141	7.8	1.7	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	50	25952	4.5	4.2	6.1	8.6	9.5	0.95	1.7	3.9	0.30	0.73	41.1	144	0.62	0.072	0.065	19.4	0.54	8046	20336	677	189	D	F	0.0051	133.6	2.69	658	7.9	8.5	0.17	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	55	22965	5.0	4.7	6.6	9.3	10.3	1.00	1.8	4.4	0.29	0.81	44.8	141	0.66	0.071	0.064	20.1	0.59	8007	20336	679	185	D	F	0.0069	158.2	2.90	1505	8.0	22.4	0.41	0	0.0	0.0	0.00	0	0.0	0.0	0.00
50	60	20336	5.5	5.1	7.0	9.9	11.0	1.05	1.9	4.8	0.28	0.89	47.6	138	0.70	0.071	0.064	20.4	0.63	7921	20336	674	181	D	F	0.0089	181.3	3.04	2779	8.1	45.2	0.76	1	12.5	0.1	0.00	0	0.0	0.0	0.00
55	65	18044	5.9	5.6	7.5	10.5	11.7	1.10	2.0	5.1	0.28	0.98	49.8	135	0.74	0.071	0.064	20.5	0.65	7804	20336	663	177	D	F	0.0112	202.5	3.14	3834	8.3	71.1	1.10	7	12.6	0.5	0.01	0	0.0	0.0	0.00
60	70	16056	6.4	6.0	7.9	11.0	12.3	1.14	2.1	5.5	0.27	1.07	51.5	133	0.79	0.071	0.064	20.4	0.68	7665	20336	649	172	D	F	0,0138	221.8	3.19	4701	8.6	99.0	1.42	30	12.7	1.9	0.03	1	14.3	0.1	0.00
65	75	14335	6.8	6.5	8.2	11.5	12.8	1.19	2.2	5.8	0.27	1.17	52.7	130	0.84	0.072	0.065	20.2	0.69	7513	20336	632	167	D	F	0,0167	239.1	3.21	5333	8.8	126.8	1.70	85	12.8	5.6	0.08	5	14.4	0.4	0.01
70	80	12845	7.3	6.9	8.6	12.0	13.4	1.24	2.3	6.1	0.27	1.26	53.6	128	0.88	0.074	0.066	19.8	0.70	7354	20336	614	162	D	F	0.0198	254.4	3.20	5728	9.0	153.1	1.92	182	12.9	12.6	0.16	17	14.5	1.3	0.02
75	85	11554	7.7	7.3	8.9	12.4	13.8	1.29	2.4	6.4	0.27	1.36	54.1	126	0.93	0.075	0.067	19.5	0.70	7191	20336	595	158	D	F	0.0232	268.0	3.17	5928	9.3	177.2	2.10	325	13.0	23.5	0.28	43	14.6	3.5	0.04
80	90	10433	8.2	7.7	9.3	12.8	14.3	1.33	2.5	6.7	0.26	1.47	54.4	125	0.98	0.076	0.068	19.1	0.71	7029	20336	576	153	D	F	0.0268	280.0	3.13	5974	9.5	198.8	2.22	506	13.1	38.2	0.43	89	14.7	7.6	0.08
85	95	9456	8.6	8.1	9.6	13.2	14.7	1.38	2.6	7.0	0.26	1.57	54.5	123	1.03	0.078	0.070	18.6	0.71	6868	20336	558	149	D	F	0.0307	290.4	3.07	5909	9.8	217.8	2.30	763	13.2	59.0	0.62	160	14.8	14.2	0.15
90	100	8602	9.0	8.5	9.8	13.6	15.1	1.43	2.7	7.2	0.26	1.68	54.5	121	1.08	0.080	0.071	18.2	0.70	6711	20336	539	144	D	F	0.0348	299.4	3.01	5766	10.1	234.5	2.36	984	13.3	79.3	0.80	253	14.9	23.2	0.23
95	105	7854	9.4	8.9	10.1	13.9	15.5	1.47	2.8	7.5	0.26	1.79	54.3	120	1.13	0.081	0.073	17.7	0.70	6559	20336	522	140	D	F	0,0391	307.2	2.94	5574	10.3	248.9	2.38	1198	13.5	100.6	0.96	365	15.0	34.8	0.33
100	110	7195	9.8	9.3	10.3	14.2	15.8	1.51	2.8	7.7	0.27	1.90	54.1	118	1.18	0.083	0.075	17.3	0.69	6411	20336	505	137	D	F	0,0436	313.9	2.86	5350	10.6	261.4	2.39	1392	13.7	121.8	1.11	488	15.2	48.3	0.44
105	115	6613	10.2	9.7	10.6	14.5	16.1	1.56	2.9	7.9	0.27	2.01	53.7	117	1.23	0.085	0.076	16.8	0.69	6268	20336	488	133	D	F	0.0483	319.6	2.79	5112	10.9	272.0	2.37	1562	13.8	142.4	1.24	618	15.3	63.3	0.55
110	120	6097	10.6	10.0	10.8	14.7	16.4	1.60	3.0	8.1	0.27	2.12	53.3	115	1.28	0.087	0.078	16.4	0.68	6131	20336	473	130	D	F	0.0532	324.3	2.71	4868	11.2	281.1	2.35	1703	14.0	161.8	1.35	747	15.5	79.3	0.66
115	125	5638	10.9	10.4	11.0	15.0	16.7	1.64	3.1	8.3	0.27	2.24	52.9	114	1.33	0.089	0.080	16.0	0.67	6000	20336	458	126	D	F	0.0582	328.3	2.64	4626	11.5	288.9	2.32	1818	14.2	179.7	1.44	869	15.6	95.6	0.77
120	130	5229	11.3	10.8	11.2	15.2	17.0	1.68	3.2	8.5	0.27	2.35	52.4	112	1.38	0.091	0.081	15.6	0.66	5874	20336	444	123	D	F	0.0634	331.6	2.56	4389	11.8	295.4	2.28	1904	14.4	195.9	1.51	981	15.7	111.8	0.86
125	135	4862	11.7	11.1	11.4	15.5	17.3	1.72	3.3	8.6	0.27	2.47	51.9	111	1.43	0.093	0.083	15.2	0.65	5754	20336	431	120	D	F	0,0687	334.2	2.48	4162	12.0	300.9	2.24	1967	14.6	210.5	1.56	1082	15.9	127.6	0.95
130	140	4533	12.0	11.4	11.6	15.7	17.5	1.76	3.4	8.8	0.27	2.59	51.4	110	1.49	0.095	0.085	14.8	0.64	5639	20336	418	117	D	F	0.0742	336.3	2.41	3946	12.3	305.4	2.19	2007	14.8	223.4	1.60	1169	16.1	142.7	1.02
135	145	4236	12.4	11.8	11.8	15.9	17.7	1.80	3.4	8.9	0.27	2.71	50.9	109	1.54	0.097	0.087	14.5	0.64	5528	20336	406	115	D	F	0.0798	337.9	2.34	3740	12.6	309.2	2.14	2028	14.9	234.8	1.62	1240	16.2	156.8	1.08
140	150	3968	12.7	12.1	11.9	16.1	17.9	1.84	3.5	9.0	0.28	2.82	50.4	107	1.59	0.099	0.089	14.1	0.63	5423	20336	394	112	D	F	0.0854	339.0	2.27	3547	12.9	312.3	2.09	2036	15.1	244.7	1.64	1300	16.4	170.0	1.14
145	155	3725	13.1	12.4	12.1	16.3	18.1	1.88	3.6	9.2	0.28	2.94	49.9	106	1.64	0.101	0.090	13.8	0.62	5323	20336	384	110	D	F	0.0912	339.7	2.20	3367	13.2	314.7	2.04	2030	15.3	253.3	1.64	1347	16.6	182.1	1.18
150	160	3504	13.4	12.8	12.2	16.4	18.3	1.92	3.7	9.3	0.28	3.06	49.3	105	1.69	0.103	0.092	13.5	0.61	5227	20336	373	107	D	F	0.0971	340.1	2.13	3197	13.5	316.6	1.98	2014	15.5	260.7	1.63	1382	16.7	193.1	1.21
155	165	3303	13.7	13.1	12.4	16.6	18.5	1.96	3.8	9.4	0.28	3.18	48.8	104	1.74	0.105	0.094	13.2	0.60	5136	20336	364	105	D	F	0.1030	340.1	2.07	3039	13.7	318.0	1.93	1989	15.8	267.1	1.62	1407	16.9	203.0	1.23
160	170	3120	14.0	13.4	12.5	16.7	18.7	1.99	3.8	9.5	0.28	3.30	48.3	103	1.79	0.107	0.096	12.9	0.59	5048	20336	354	103	D	F	0.1089	339.9	2.00	2892	14.0	319.0	1.88	1959	16.0	272.4	1.61	1424	17.1	212.0	1.25
165	175	2952	14.4	13.7	12.7	16.9	18.9	2.03	3.9	9.5	0.29	3.42	47.8	102	1.84	0.109	0.098	12.6	0.58	4965	20336	346	101	D	F	0.1150	339.5	1.94	2753	14.3	319.6	1.83	1922	16.2	277.0	1.59	1432	17.3	220.0	1.26
170	180	2797	14.7	14.0	12.8	17.0	19.0	2.06	4.0	9.6	0.29	3.54	47.3	101	1.89	0.111	0.099	12.4	0.57	4885	20336	337	99	D	F	0.1211	338.8	1.89	2624	14.6	319.9	1.78	1884	16.4	280.7	1.56	1434	17.4	227.1	1.26
175	185	2656	15.0	14.3	12.9	17.2	19.2	2.10	4.1	9.7	0.29	3.66	46.8	100	1.94	0.113	0.101	12.1	0.57	4809	20336	329	97	D	F	0.1273	338.0	1.83	2505	14.8	320.0	1.73	1844	16.6	283.8	1.54	1431	17.6	233.4	1.26
180	190	2525	15.3	14.6	13.0	17.3	19.3	2.13	4.1	9.8	0.29	3.79	46.4	99	1.99	0.115	0.103	11.9	0.56	4737	20336	322	96	D	F	0.1334	336.9	1.78	2393	15.1	319.8	1.69	1799	16.8	286.3	1.51	1421	17.8	238.9	1.26
		SI = 11 m Initial Density = 80000 stems/ha																																						
5	15	78569	0.4	0.3	1.5	2.2	2.4	0.66	0.9	0.6	0.60	0.34	0.9	541	0.36	0.159	0.149	1.4	0.02	8611	29812	321	266	D	F	0.0000	0.7	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	20	75018	1.0	0.9	2.2	3.3	3.5	0.68	1.0	1.0	0.49	0.36	6.2	252	0.37	0.111	0.103	6.1	0.09	9464	29812	471	272	D	F	0.0001	6.8	0.35	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	25	69765	1.6	1.5	2.8	4.3	4.7	0.71	1.1	1.5	0.42	0.40	13.6	203	0.38	0.088	0.081	10.8	0.19	10101	29812	606	276	D	F	0.0003	19.7	0.80	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	30	63471	2.1	1.9	3.5	5.3	5.8	0.74	1.2	2.0	0.37	0.44	21.7	182	0.40	0.075	0.069	15.0	0.29	10515	29812	712	276	D	F	0.0006	38.9	1.32	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	35	56799	2.6	2.4	4.0	6.2	6.8	0.78	1.3	2.4	0.34	0.48	29.5	171	0.42	0.068	0.062	18.4	0.40	10723	29812	788	273	D	F	0.0011	62.8	1.82	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	40	50266	3.0	2.8	4.6	7.0	7.8	0.82	1.4	2.9	0.31	0.53	36.6	163	0.45	0.064	0.057	21.0	0.49	10762	29812	835	267	D	F	0.0018	89.3	2.26	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	45	44194	3.5	3.3	5.1	7.8	8.7	0.86	1.4	3.3	0.29	0.59	42.6	157	0.48	0.061	0.055	22.8	0.57	10675	29812	860	260	D	F	0.0026	116.7	2.62	20	7.7	0.2	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	50	38744	4.0	3.7	5.6	8.5	9.5	0.90	1.5	3.7	0.28	0.65	47.5	152	0.51	0.060	0.053	23.9	0.64	10501	29812	867	251	D	F	0.0037	143.6	2.90	195	7.7	2.3	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	55	33958	4.4	4.1	6.0	9.2	10.3	0.94	1.6	4.1	0.27	0.71	51.4	148	0.54	0.059	0.053	24.5	0.69	10272	29812	862	242	D	F	0.0050	169.2	3.10	668	7.8	8.8	0.16	0	0.0	0.0	0.00	0	0.0	0.0	0.00
50	60	29812	4.8	4.5	6.4	9.8	11.0	0.98	1.7	4.5	0.27	0.78	54.4	144	0.58	0.059	0.053	24.8	0.73	10011	29812	847	233	D	F	0.0065	193.0	3.24	1681	7.9	23.7	0.40	0	0.0	0.0	0.00	0	0.0	0.0	0.00
55	65	26248	5.2	4.9	6.8	10.4	11.7	1.03	1.8	4.8	0.26	0.85	56.7	141	0.62	0.060	0.053	24.8	0.76	9734	29812	827	224	D	F	0.0082	214.7	3.32	2785	8.1	44.2	0.68	0	0.0	0.0	0.00	0	0.0	0.0	0.00
60	70	23194	5.7	5.3	7.2	10.9	12.3	1.07	1.8	5.2	0.26	0.93	58.4	139	0.66	0.060	0.054	24.5	0.78	9452	29812	804	215	D	F	0.0101	234.2	3.37	3895	8.2	69.4	1.00	3	12.5	0.2	0.00	0	0.0	0.0	0.00
65	75	20580	6.1	5.7	7.5	11.4	12.8	1.11	1.9	5.5	0.26	1.01	59.5	136	0.70	0.061	0.054	24.2	0.79	9171	29812	779	207	D	F	0.0122	251.7	3.38	4866	8.4	96.8	1.30	14	12.6	0.9	0.01	0	0.0	0.0	0.00
70	80	18338	6.5	6.1	7.9	11.8	13.4	1.15	2.0	5.8	0.25	1.09	60.3	134	0.74	0.062	0.055	23.7	0.80	8897	29812	752	199	D	F	0.0146	267.2	3.36	5625	8.6	124.5	1.56	45	12.7	2.9	0.04	2	14.3	0.1	0.00
75	85	16411	6.9	6.5	8.2	12.3	13.8	1.19	2.1	6.0	0.25	1.17	60.7	131	0.78	0.064	0.056	23.2	0.81	8633	29812	726	192	D	F	0.0171	280.8	3.32	6157	8.8	151.0	1.79	104	12.8	7.1	0.08	7	14.4	0.5	0.01
80	90	14750	7.3	6.9	8.4	12.6	14.3	1.24	2.2	6.3	0.25	1.25	60.9	129	0.82	0.065	0.058	22.6	0.80	8378	29812	700	185	D	F	0.0198	292.7	3.27	6480	9.0	175.6	1.96	200	12.9	14.2	0.16	18	14.5	1.5	0.02
85	95	13313	7.6	7.2	8.7	13.0	14.7	1.28	2.3	6.5	0.25	1.34	60.9	127	0.87	0.067	0.059	22.0	0.80	8136	29812	675	179	D	F	0.0228	303.1	3.20	6633	9.2	197.9	2.09	368	12.9	26.6	0.28	42	14.6	3.5	0.04
90	100	12064	8.0	7.6	9.0	13.3	15.1	1.32	2.4	6.8	0.25	1.43	60.7	126	0.91	0.068	0.060	21.4	0.80	7904	29812	650	173	D	F	0.0259	312.1	3.13	6654	9.4	217.6	2.19	545	13.0	40.8	0.41	83	14.7	7.2	0.07
95	105	10974	8.4	7.9	9.2	13.7	15.5	1.36	2.4	7.0	0.25	1.52	60.4	124	0.95	0.070	0.062	20.9	0.79	7685	29812	627	167	D	F	0.0292	319.9	3.06	6574	9.7	235.0	2.25	741	13.1	57.4	0.55	142	14.8	12.7	0.12
100	110	10019	8.7	8.3	9.4	14.0	15.8	1.40	2.5	7.2	0.25	1.61	60.0	122	1.00	0.072	0.063	20.3	0.78	7477	29812	605	162	D	F	0.0326	326.5	2.98	6425	9.9	250.1	2.28	946	13.3	75.9	0.69	221	14.9	20.3	0.19
105	115	9180	9.1	8.6	9.6	14.2	16.1	1.44	2.6	7.4	0.26	1.71	59.5	121	1.04	0.073	0.065	19.7	0.77	7279	29812	584	157	D	F	0.0362	332.1	2.90	6229	10.1	263.3	2.30	1149	13.4	95.2	0.83	316	15.0	29.9	0.26
110	120	8438	9.4	8.9	9.8	14.5	16.4	1.48	2.7	7.6	0.26	1.80	58.9	119	1.09	0.075	0.066	19.2	0.76	7092	29812	564	152	D	F	0.0399	336.9	2.82	6001	10.4	274.5	2.30	1337	13.5	114.8	0.96	422	15.1	41.3	0.35
115	125	7781	9.8	9.3	10.0	14.7	16.7	1.51	2.8	7.8	0.26	1.90	58.4	118	1.13	0.077	0.068	18.7	0.75	6915	29812	545	148	D	F	0.0438	340.8	2.74	5758	10.6	284.2	2.28	1508	13.7	134.1	1.08	537	15.2	54.1	0.43
120	130	7196	10.1	9.6	10.2	15.0	17.0	1.55	2.8	7.9	0.26	1.99	57.8	116	1.18	0.079	0.069	18.2	0.74	6747	29812	527	143	D	F	0.0478	344.1	2.66	5509	10.9	292.4	2.26	1658	13.8	152.5	1.18	655	15.3	67.9	0.52
125	135	6674	10.4	9.9	10.4	15.2	17.3	1.59	2.9	8.1	0.26	2.09	57.1	115	1.22	0.081	0.071	17.7	0.73	6588	29812	510	139	D	F	0.0519	346.7	2.58	5259	11.1	299.4	2.22	1784	14.0	169.7	1.26	770	15.4	82.3	0.61
130	140	6206	10.8	10.2	10.5	15.4	17.5	1.62	3.0	8.2	0.26	2.19	56.5	114	1.27	0.082	0.073	17.2	0.72	6436	29812	494	136	D	F	0.0562	348.7	2.50	5014	11.4	305.3	2.19	1888	14.1	185.7	1.33	882	15.6	97.0	0.69
135	145	5785	11.1	10.5	10.7	15.6	17.7	1.66	3.1	8.4	0.26	2.29	55.9	113	1.31	0.084	0.074	16.8	0.71	6293	29812	479	132	D	F	0.0606	350.3	2.42	4774	11.6	310.2	2.15	1968	14.3	200.3	1.39	984	15.7	111.5	0.77
140	150	5406	11.4	10.8	10.8	15.8	17.9	1.69	3.2	8.5	0.27	2.39	55.2	111	1.36	0.086	0.076	16.4	0.70	6157	29812	465	129	D	F	0.0650	351.4	2.35	4547	11.9	314.3	2.10	2030	14.5	213.4	1.43	1079	15.8	125.7	0.84
145	155	5063	11.7	11.1	11.0	16.0	18.1	1.73	3.2	8.6	0.27	2.49	54.6	110	1.41	0.088	0.077	16.0	0.69	6028	29812	451	126	D	F	0.0695	352.1	2.28	4325	12.1	317.6	2.05	2071	14.6	225.2	1.46	1159	16.0	139.3	0.90
150	160	4752	12.0	11.4	11.1	16.1	18.3	1.76	3.3	8.7	0.27	2.59	54.0	109	1.45	0.090	0.079	15.6	0.68	5905	29812	438	123	D	F	0.0742	352.4	2.21	4120	12.3	320.3	2.01	2100	14.8	235.7	1.48	1232	16.1	152.1	0.95
155	165	4469	12.3	11.7	11.2	16.3	18.5	1.80	3.4	8.8	0.27	2.69	53.4	108	1.50	0.092	0.081	15.2	0.67	5789	29812	426	120	D	F	0.0789	352.5	2.14	3924	12.6	322.4	1.96	2113	15.0	244.9	1.49	1294	16.2	164.2	1.00
160	170	4212	12.6	12.0	11.4	16.4	18.7	1.83	3.4	8.9	0.27	2.79	52.7	107	1.54	0.094	0.082	14.8	0.65	5678	29812	414	118	D	F	0.0836	352.2	2.08	3740	12.8	324.0	1.91	2115	15.1	253.0	1.49	1344	16.4	175.4	1.03
165	175	3976	12.9	12.3	11.5	16.6	18.9	1.86	3.5	9.0	0.28	2.89	52.1	106	1.59	0.096	0.084	14.5	0.64	5572	29812	404	115	D	F	0.0885	351.8	2.02	3565	13.1	325.2	1.86	2106	15.3	260.0	1.49	1385	16.5	185.8	1.06
170	180	3760	13.2	12.6	11.6	16.7	19.0	1.90	3.6	9.1	0.28	3.00	51.6	105	1.63	0.098	0.086	14.2	0.63	5471	29812	393	113	D	F	0.0934	351.0	1.95	3402	13.3	326.0	1.82	2090	15.5	266.0	1.48	1416	16.7	195.3	1.09
175	185	3562	13.5	12.9	11.7	16.9	19.2	1.93	3.7	9.2	0.28	3.10	51.0	103	1.68	0.099	0.087	13.9	0.62	5375	29812	383	110	D	F	0.0983	350.1	1.90	3247	13.6	326.4	1.77	2066	15.7	271.2	1.47	1439	16.8	203.9	1.10
180	190	3380	13.8	13.1	11.8	17.0	19.3	1.96	3.7	9.3	0.28	3.20	50.4	102	1.72	0.101	0.089	13.6	0.62	5284	29812	374	108	D	F	0.1033	349.1	1.84	3102	13.8	326.6	1.72	2038	15.8	275.7	1.45	1455	17.0	211.7	1.12

Table A37. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 12 m Initial Density = 800 stems/ha																																								
5	14	799	2.2	2.0	2.2	2.5	2.5	0.75	1.9	0.3	0.87	0.44	0.3	124	3.54	1.443	1.408	0.2	0.00	126	721	9	4	V	F	0.0004	0.3	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	19	796	4.1	3.8	3.3	3.7	3.8	0.91	2.7	0.7	0.80	0.66	1.0	100	3.54	0.960	0.933	0.5	0.01	212	721	18	5	A	F	0.0023	1.8	0.10	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	24	791	5.7	5.4	4.4	4.9	5.1	1.07	3.4	1.2	0.73	0.94	2.0	96	3.56	0.723	0.701	0.8	0.02	316	721	28	7	A	F	0.0063	5.0	0.21	66	9.2	1.0	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	29	784	7.2	6.8	5.5	6.1	6.3	1.23	4.0	1.9	0.67	1.24	3.2	94	3.57	0.586	0.568	1.2	0.03	431	721	37	10	A	F	0.0126	9.9	0.34	262	9.5	5.1	0.18	13	13.1	0.5	0.02	2	14.4	0.1	0.00
25	34	777	8.5	8.0	6.5	7.2	7.4	1.37	4.4	2.6	0.62	1.56	4.5	94	3.59	0.499	0.483	1.5	0.04	552	721	45	12	A	F	0.0212	16.5	0.49	429	10.1	11.6	0.34	64	13.5	3.3	0.10	17	15.1	1.0	0.03
30	39	767	9.8	9.2	7.5	8.2	8.5	1.51	4.7	3.3	0.58	1.89	5.8	93	3.61	0.439	0.425	1.8	0.06	675	721	54	15	A	F	0.0317	24.3	0.63	534	10.9	19.6	0.51	145	13.9	9.0	0.23	58	15.4	3.9	0.10
35	44	757	10.9	10.3	8.4	9.2	9.5	1.63	5.0	4.0	0.55	2.23	7.1	93	3.63	0.396	0.383	2.1	0.07	797	721	61	17	A	F	0.0439	33.2	0.76	596	11.6	28.6	0.65	232	14.4	17.2	0.39	119	15.8	9.5	0.22
40	49	746	11.9	11.3	9.2	10.1	10.4	1.75	5.3	4.6	0.52	2.56	8.4	93	3.66	0.364	0.352	2.4	0.09	915	721	68	19	A	F	0.0575	42.9	0.88	631	12.4	38.3	0.78	312	14.9	27.0	0.55	187	16.2	17.4	0.36
45	54	734	12.9	12.3	10.0	10.9	11.2	1.86	5.4	5.2	0.50	2.89	9.6	93	3.69	0.339	0.329	2.7	0.10	1029	721	74	21	A	F	0.0722	53.0	0.98	650	13.1	48.4	0.90	377	15.4	37.6	0.70	253	16.6	26.9	0.50
50	59	721	13.8	13.1	10.8	11.6	12.0	1.96	5.6	5.8	0.48	3.21	10.8	92	3.72	0.320	0.310	2.9	0.12	1137	721	80	23	A	F	0.0878	63.3	1.08	659	13.8	58.7	1.00	427	16.0	48.6	0.83	310	17.1	37.2	0.63
55	64	708	14.6	14.0	11.5	12.3	12.7	2.06	5.8	6.3	0.47	3.53	11.9	92	3.76	0.305	0.296	3.1	0.13	1239	721	85	25	A	F	0.1041	73.7	1.16	660	14.6	69.1	1.08	465	16.5	59.6	0.93	358	17.5	48.1	0.75
60	69	695	15.4	14.7	12.1	13.0	13.4	2.15	5.9	6.8	0.46	3.84	13.0	91	3.79	0.293	0.284	3.3	0.14	1335	721	90	27	A	F	0.1210	84.1	1.22	658	15.2	79.4	1.15	494	17.0	70.5	1.02	396	18.0	59.0	0.86
65	74	681	16.2	15.5	12.7	13.6	14.0	2.23	6.0	7.3	0.45	4.15	14.0	91	3.83	0.283	0.274	3.5	0.15	1424	721	94	28	A	F	0.1382	94.1	1.27	652	15.9	89.4	1.21	513	17.5	81.0	1.10	426	18.4	69.8	0.95
70	79	667	16.9	16.2	13.2	14.1	14.5	2.31	6.1	7.7	0.44	4.45	14.9	90	3.87	0.274	0.267	3.6	0.17	1507	721	97	30	A	F	0.1556	103.8	1.32	644	16.5	99.1	1.26	526	18.0	91.2	1.16	449	18.8	80.3	1.02
75	84	653	17.6	16.8	13.7	14.6	15.0	2.39	6.2	8.1	0.43	4.74	15.8	89	3.91	0.268	0.260	3.8	0.18	1584	721	100	31	B	F	0.1732	113.1	1.35	634	17.1	108.4	1.29	534	18.5	100.8	1.20	466	19.3	90.4	1.08
80	89	639	18.2	17.4	14.2	15.1	15.5	2.46	6.3	8.4	0.42	5.03	16.6	89	3.96	0.262	0.255	3.9	0.19	1656	721	103	32	B	F	0.1908	121.9	1.37	624	17.7	117.2	1.32	538	18.9	110.0	1.24	478	19.7	100.0	1.13
85	94	626	18.8	18.0	14.7	15.5	16.0	2.53	6.4	8.8	0.42	5.31	17.4	88	4.00	0.257	0.250	4.0	0.20	1722	721	105	33	B	F	0.2085	130.5	1.39	614	18.3	125.7	1.34	540	19.4	118.9	1.27	486	20.1	109.2	1.16
90	99	612	19.4	18.6	15.1	15.9	16.4	2.59	6.5	9.0	0.41	5.58	18.0	87	4.04	0.253	0.247	4.1	0.20	1783	721	108	34	B	F	0.2260	138.3	1.40	602	18.8	133.6	1.35	538	19.8	126.9	1.28	491	20.5	117.8	1.19
95	104	599	19.9	19.1	15.5	16.3	16.8	2.65	6.5	9.3	0.41	5.85	18.7	87	4.09	0.250	0.244	4.2	0.21	1839	721	109	35	B	F	0.2434	145.8	1.40	590	19.3	141.1	1.36	535	20.3	134.6	1.30	493	20.9	125.8	1.21
100	109	587	20.5	19.7	15.9	16.7	17.1	2.71	6.6	9.6	0.40	6.12	19.3	86	4.13	0.247	0.241	4.3	0.22	1891	721	111	36	B	F	0.2608	153.1	1.41	580	19.8	148.3	1.36	532	20.7	142.0	1.31	494	21.3	133.6	1.23
105	114	574	21.0	20.2	16.2	17.0	17.4	2.77	6.7	9.8	0.40	6.37	19.8	85	4.17	0.245	0.239	4.3	0.23	1940	721	112	37	B	F	0.2779	159.5	1.40	568	20.3	154.7	1.36	526	21.1	148.6	1.31	492	21.7	140.6	1.24
110	119	562	21.5	20.7	16.5	17.3	17.8	2.83	6.7	10.0	0.40	6.63	20.3	85	4.22	0.243	0.237	4.4	0.23	1984	721	114	37	B	F	0.2948	165.7	1.39	557	20.8	160.9	1.35	520	21.5	154.9	1.30	490	22.1	147.2	1.24
115	124	550	21.9	21.1	16.8	17.6	18.1	2.88	6.8	10.2	0.40	6.88	20.8	84	4.26	0.242	0.236	4.4	0.24	2026	721	115	38	B	F	0.3116	171.4	1.38	546	21.2	166.5	1.34	513	22.0	160.6	1.30	486	22.5	153.3	1.24
120	129	539	22.4	21.6	17.1	17.9	18.3	2.93	6.9	10.3	0.39	7.12	21.2	83	4.31	0.240	0.235	4.5	0.24	2064	721	116	38	B	F	0.3280	176.8	1.37	535	21.7	171.9	1.33	506	22.4	166.1	1.29	482	22.8	159.1	1.24
125	134	528	22.8	22.0	17.4	18.2	18.6	2.98	6.9	10.5	0.39	7.36	21.6	83	4.35	0.239	0.234	4.5	0.25	2100	721	116	39	B	F	0.3441	181.7	1.36	525	22.1	176.8	1.32	499	22.7	171.1	1.28	477	23.2	164.4	1.23
130	139	518	23.3	22.4	17.7	18.4	18.8	3.03	7.0	10.6	0.39	7.60	22.0	82	4.39	0.238	0.233	4.6	0.25	2134	721	117	39	B	F	0.3600	186.5	1.34	515	22.5	181.6	1.31	492	23.1	175.9	1.27	472	23.5	169.4	1.22
135	144	508	23.7	22.9	17.9	18.7	19.1	3.08	7.0	10.8	0.39	7.83	22.4	81	4.44	0.238	0.233	4.6	0.26	2165	721	118	40	B	F	0.3758	190.9	1.33	506	22.9	185.9	1.29	485	23.5	180.3	1.25	467	23.9	174.1	1.21
140	149	498	24.1	23.3	18.2	18.9	19.3	3.12	7.1	10.9	0.39	8.06	22.7	81	4.48	0.237	0.232	4.6	0.26	2195	721	118	40	B	F	0.3910	194.7	1.31	496	23.3	189.8	1.28	477	23.8	184.1	1.24	461	24.2	178.2	1.20
145	154	489	24.5	23.6	18.4	19.1	19.5	3.17	7.1	11.0	0.39	8.28	23.0	80	4.52	0.237	0.232	4.6	0.27	2223	721	118	40	B	F	0.4059	198.5	1.29	487	23.7	193.6	1.26	470	24.2	188.0	1.22	455	24.6	182.2	1.18
150	159	480	24.9	24.0	18.6	19.3	19.7	3.21	7.2	11.1	0.39	8.50	23.3	79	4.56	0.236	0.232	4.7	0.27	2249	721	119	41	B	F	0.4206	201.9	1.27	478	24.1	196.9	1.24	463	24.5	191.4	1.21	449	24.9	185.8	1.17
155	164	472	25.2	24.4	18.8	19.5	19.9	3.25	7.2	11.1	0.39	8.72	23.6	79	4.60	0.236	0.231	4.7	0.27	2274	721	119	41	B	F	0.4350	205.3	1.25	471	24.4	200.3	1.22	457	24.9	194.8	1.19	444	25.2	189.4	1.16
160	169	463	25.6	24.7	19.0	19.7	20.1	3.29	7.3	11.2	0.39	8.93	23.8	78	4.65	0.236	0.232	4.7	0.28	2298	721	119	41	B	F	0.4490	207.9	1.23	462	24.8	202.9	1.20	449	25.2	197.4	1.17	438	25.5	192.3	1.14
165	174	456	25.9	25.1	19.2	19.9	20.2	3.33	7.3	11.3	0.39	9.14	24.1	77	4.68	0.236	0.231	4.7	0.28	2321	721	120	42	B	F	0.4627	211.0	1.21	455	25.1	206.0	1.19	443	25.5	200.5	1.15	433	25.8	195.5	1.12
170	179	448	26.3	25.4	19.3	20.0	20.4	3.37	7.3	11.3	0.39	9.35	24.3	77	4.72	0.236	0.232	4.7	0.28	2343	721	120	42	B	F	0.4761	213.3	1.19	447	25.5	208.3	1.16	436	25.8	202.7	1.13	427	26.1	198.0	1.11
175	184	441	26.6	25.7	19.5	20.2	20.6	3.40	7.4	11.4	0.39	9.55	24.5	76	4.76	0.236	0.232	4.8	0.28	2364	721	120	42	B	F	0.4891	215.7	1.17	440	25.8	210.7	1.15	430	26.1	205.2	1.12	421	26.4	200.5	1.09
180	189	434	26.9	26.1	19.7	20.3	20.7	3.44	7.4	11.4	0.39	9.75	24.7	75	4.80	0.236	0.232	4.8	0.29	2384	721	120	42	B	F	0.5018	217.8	1.15	433	26.1	212.8	1.13	424	26.4	207.3	1.10	416	26.7	202.8	1.07
SI = 12 m Initial Density = 1000 stems/ha																																								
5	14	998	2.1	1.9	2.2	2.4	2.5	0.74	1.8	0.3	0.86	0.43	0.3	129	3.17	1.292	1.260	0.2	0.00	154	869	11	4	V	F	0.0004	0.4	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	19	992	3.9	3.6	3.3	3.7	3.8	0.89	2.6	0.7	0.79	0.63	1.2	104	3.18	0.861	0.836	0.6	0.01	252	869	22	6	A	F	0.0020	2.0	0.11	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	24	984	5.4	5.1	4.4	4.9	5.1	1.04	3.3	1.3	0.71	0.89	2.3	98	3.19	0.649	0.629	1.0	0.02	371	869	32	9	A	F	0.0056	5.5	0.23	56	9.1	0.8	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	29	973	6.9	6.4	5.5	6.1	6.3	1.19	3.8	1.9	0.65	1.17	3.6	97	3.21	0.527	0.510	1.4	0.04	501	869	43	11	A	F	0.0113	11.0	0.38	275	9.3	5.0	0.17	9	13.0	0.4	0.01	0	0.0	0.0	0.00
25	34	960	8.2	7.7	6.5	7.2	7.4	1.33	4.2	2.6	0.61	1.46	5.0	96	3.23	0.449	0.434	1.8	0.05	636	869	53	14	A	F	0.0190	18.2	0.54	484	9.9	12.1	0.36	54	13.3	2.7	0.08	12	14.9	0.7	0.02
30	39	945	9.3	8.8	7.4	8.2	8.5	1.46	4.5	3.3	0.57	1.77	6.5	96	3.25	0.396	0.383	2.1	0.07	773	869	62	17	A	F	0.0285	26.9	0.69	621	10.5	20.9	0.54	138	13.7	8.3	0.21	48	15.3	3.2	0.08
35	44	928	10.4	9.9	8.3	9.2	9.5	1.58	4.8	4.0	0.53	2.08	7.9	96	3.28	0.358	0.346	2.5	0.08	907	869	71	19	A	F	0.0395	36.7	0.84	703	11.2	30.9	0.71	237	14.2	16.8	0.38	110	15.6	8.5	0.19
40	49	909	11.4	10.8	9.2	10.0	10.4	1.69	5.0	4.7	0.51	2.39	9.3	95	3.32	0.330	0.319	2.8	0.10	1036	869	78	22	A	F	0.0520	47.3	0.97	749	12.0	41.6	0.85	332	14.6	27.4	0.56	185	16.0	16.5	0.34
45	54	890	12.4	11.7	10.0	10.9	11.2	1.80	5.2	5.3	0.49	2.70	10.7	95	3.35	0.309	0.298	3.0	0.12	1159	869	85	24	A	F	0.0655	58.3	1.08	774	12.7	52.7	0.98	412	15.1	39.0	0.72	260	16.4	26.4	0.49
50	59	869	13.3	12.6	10.7	11.6	12.0	1.90	5.3	5.9	0.47	3.01	12.0	94	3.39	0.292	0.283	3.3	0.13	1275	869	91	26	A	F	0.0800	69.5	1.18	783	13.4	64.0	1.09	475	15.6	51.1	0.87	329	16.8	37.5	0.64
55	64	848	14.1	13.4	11.4	12.3	12.7	1.99	5.5	6.4	0.45	3.31	13.2	94	3.43	0.279	0.270	3.5	0.15	1383	869	96	28	A	F	0.0952	80.7	1.26	782	14.1	75.2	1.18	523	16.1	63.2	0.99	387	17.2	49.3	0.77
60	69	827	14.9	14.2	12.0	12.9	13.4	2.08	5.6	6.9	0.44	3.61	14.3	93	3.48	0.269	0.260	3.7	0.16	1483	869	101	30	A	F	0.1110	91.8	1.33	777	14.7	86.3	1.25	559	16.6	75.2	1.09	434	17.6	61.2	0.89
65	74	805	15.6	14.9	12.6	13.5	14.0	2.17	5.7	7.4	0.43	3.91	15.4	93	3.52	0.261	0.252	3.9	0.17	1575	869	105	31	B	F	0.1272	102.4	1.39	766	15.4	97.0	1.31	582	17.1	86.6	1.17	471	18.0	73.0	0.99
70	79	784	16.3	15.6	13.1	14.1	14.5	2.24	5.8	7.8	0.42	4.20	16.3	92	3.57	0.254	0.246	4.1	0.18	1659	869	109	33	B	F	0.1438	112.7	1.43	753	16.0	107.3	1.36	598	17.5	97.6	1.24	499	18.4	84.4	1.07
75	84	763	17.0	16.2	13.7	14.6	15.0	2.32	5.9	8.2	0.41	4.48	17.2	91	3.62	0.248	0.241	4.2	0.19	1737	869	112	34	B	F	0.1604	122.4	1.46	738	16.6	117.1	1.40	607	18.0	108.0	1.29	520	18.8	95.4	1.14
80	89	742	17.6	16.9	14.1	15.1	15.5	2.39	6.0	8.5	0.41	4.76	18.0	90	3.67	0.244	0.237	4.3	0.20	1807	869	114	35	B	F	0.1774	131.6	1.48	722	17.2	126.3	1.42	611	18.5	117.8	1.33	534	19.3	105.7	1.19
85	94	722	18.2	17.5	14.6	15.5	16.0	2.46	6.1	8.8	0.40	5.04	18.8	90	3.72	0.240	0.233	4.4	0.21	1872	869	117	36	B	F	0.1945	140.4	1.50	706	17.7	135.0	1.44	611	18.9	127.0	1.35	543	19.7	115.5	1.23
90	99	702	18.8	18.0	15.0	15.9	16.4	2.53	6.2	9.1	0.40	5.31	19.5	89	3.77	0.237	0.231	4.5	0.22	1930	869	118	37	B	F	0.2115	148.5	1.50	689	18.3	143.1	1.45	607	19.4	135.4	1.37	547	20.1	124.5	1.26
95	104	683	19.4	18.6	15.4	16.3	16.8	2.59	6.3	9.4	0.40	5.58	20.1	88	3.83	0.235	0.228	4.6	0.23	1984	869	120	38	B	F	0.2286	156.1	1.50	672	18.8	150.7	1.45	602	19.8	143.3	1.38	549	20.5	133.0	1.28
100	109	665	19.9	19.1	15.8	16.7	17.1	2.65	6.4	9.6	0.39	5.84	20.7	88	3.88	0.233	0.227	4.6	0.24	2032	869	121	39	B	F	0.2454	163.2	1.50	656	19.3	157.9	1.45	595	20.3	150.8	1.39	548	20.9	140.9	1.29
105	114	647	20.4	19.6	16.1	17.0	17.4	2.71	6.4	9.9	0.39	6.10	21.2	87	3.93	0.231	0.225	4.7	0.24	2077	869	122	39	B	F	0.2623	169.7	1.49	639	19.8	164.4	1.44	586	20.7	157.4	1.38	545	21.3	148.1	1.30
110	119	630	20.9	20.1	16.4	17.3	17.8	2.77	6.5	10.1	0.39	6.35	21.7	86	3.98	0.230	0.224	4.7	0.25	2117	869	123	40	B	F	0.2790	175.8	1.48	623	20.3	170.4	1.43	577	21.1	163.7	1.38	541	21.6	154.9	1.30
115	124	614	21.4	20.6	16.7	17.6	18.1	2.82	6.6	10.2	0.39	6.60	22.1	85	4.04	0.229	0.223	4.8	0.26	2154	869	124	41	B	F	0.2954	181.4	1.47	608	20.8	176.1	1.42	568	21.5	169.6	1.37	535	22.0	161.2	1.30
TODO_REST

Table A38. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
		SI = 12 m Initial Density = 1600 stems/ha																																						
5	14	1594	1.8	1.7	2.1	2.4	2.5	0.72	1.7	0.3	0.84	0.41	0.4	142	2.50	1.025	0.997	0.3	0.00	236	1270	16	7	A	F	0.0003	0.4	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	19	1580	3.5	3.2	3.2	3.7	3.8	0.85	2.4	0.7	0.76	0.58	1.5	111	2.52	0.685	0.663	0.8	0.01	366	1270	30	9	A	F	0.0016	2.5	0.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	24	1558	4.9	4.6	4.3	4.9	5.1	0.99	3.0	1.3	0.68	0.79	2.9	105	2.53	0.518	0.500	1.3	0.03	520	1270	45	12	A	F	0.0044	6.8	0.29	33	8.9	0.4	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	29	1529	6.2	5.8	5.3	6.1	6.3	1.12	3.4	2.0	0.62	1.03	4.6	103	2.56	0.422	0.407	1.8	0.05	686	1270	59	16	A	F	0.0088	13.5	0.47	278	9.0	4.5	0.16	3	12.6	0.1	0.00	0	0.0	0.0	0.00
25	34	1494	7.4	6.9	6.3	7.2	7.4	1.25	3.8	2.7	0.57	1.28	6.4	102	2.59	0.362	0.348	2.3	0.07	857	1270	72	19	A	F	0.0150	22.4	0.66	590	9.4	12.7	0.38	30	13.1	1.4	0.04	4	14.6	0.2	0.01
30	39	1455	8.5	8.0	7.3	8.2	8.5	1.36	4.1	3.5	0.53	1.54	8.2	101	2.62	0.321	0.308	2.8	0.09	1025	1270	84	22	A	F	0.0227	33.0	0.85	824	10.0	23.4	0.60	108	13.4	6.1	0.16	26	15.0	1.6	0.04
35	44	1412	9.5	9.0	8.2	9.1	9.5	1.48	4.3	4.2	0.50	1.81	10.0	101	2.66	0.292	0.281	3.2	0.11	1187	1270	95	26	A	F	0.0317	44.8	1.02	969	10.6	35.6	0.81	224	13.7	14.7	0.34	80	15.2	5.8	0.13
40	49	1366	10.4	9.9	9.0	10.0	10.4	1.58	4.5	4.8	0.47	2.08	11.7	100	2.71	0.271	0.260	3.6	0.13	1340	1270	104	28	A	F	0.0420	57.4	1.18	1051	11.2	48.6	1.00	351	14.1	26.5	0.54	160	15.5	13.1	0.27
45	54	1319	11.3	10.7	9.8	10.8	11.2	1.68	4.6	5.4	0.45	2.36	13.3	100	2.75	0.255	0.245	3.9	0.15	1481	1270	112	31	B	F	0.0534	70.5	1.31	1091	11.8	62.0	1.15	468	14.5	40.1	0.75	254	15.9	23.5	0.44
50	59	1270	12.2	11.6	10.5	11.5	12.0	1.78	4.8	6.0	0.44	2.63	14.8	99	2.81	0.243	0.234	4.2	0.17	1610	1270	119	33	B	F	0.0657	83.5	1.42	1102	12.5	75.3	1.28	566	15.0	54.7	0.93	347	16.2	35.9	0.61
55	64	1222	13.0	12.3	11.2	12.2	12.7	1.87	4.9	6.5	0.42	2.91	16.1	98	2.86	0.234	0.225	4.5	0.18	1727	1270	125	36	B	F	0.0789	96.4	1.51	1096	13.1	88.5	1.39	642	15.4	69.3	1.09	431	16.6	49.5	0.78
60	69	1174	13.7	13.1	11.8	12.9	13.4	1.96	5.1	7.0	0.41	3.18	17.4	97	2.92	0.227	0.218	4.7	0.20	1832	1270	129	37	B	F	0.0927	108.8	1.58	1079	13.7	101.1	1.47	697	15.8	83.6	1.21	501	16.9	63.5	0.92
65	74	1128	14.5	13.8	12.4	13.5	14.0	2.04	5.2	7.5	0.40	3.46	18.5	96	2.98	0.221	0.213	4.9	0.21	1926	1270	133	39	B	F	0.1070	120.7	1.64	1055	14.4	113.3	1.54	736	16.3	97.3	1.32	558	17.3	77.5	1.05
70	79	1083	15.1	14.5	12.9	14.0	14.5	2.12	5.3	7.9	0.40	3.73	19.5	96	3.04	0.217	0.209	5.0	0.22	2009	1270	136	40	B	F	0.1219	132.0	1.67	1026	15.0	124.7	1.58	759	16.7	110.1	1.40	600	17.7	91.0	1.15
75	84	1039	15.8	15.1	13.4	14.5	15.0	2.19	5.4	8.3	0.39	4.00	20.4	95	3.10	0.214	0.206	5.1	0.23	2082	1270	139	42	B	F	0.1371	142.4	1.70	994	15.6	135.3	1.61	771	17.2	122.0	1.46	631	18.1	103.7	1.24
80	89	997	16.5	15.8	13.9	15.0	15.5	2.27	5.5	8.6	0.38	4.27	21.2	94	3.17	0.211	0.204	5.2	0.24	2147	1270	140	43	B	F	0.1526	152.1	1.71	961	16.1	145.2	1.63	774	17.6	132.9	1.50	651	18.5	115.6	1.30
85	94	958	17.1	16.4	14.3	15.4	16.0	2.34	5.6	8.9	0.38	4.53	21.9	93	3.23	0.209	0.202	5.3	0.25	2204	1270	142	43	B	F	0.1684	161.3	1.72	929	16.7	154.5	1.65	772	18.0	143.1	1.53	664	18.9	126.8	1.35
90	99	920	17.7	17.0	14.8	15.8	16.4	2.40	5.7	9.2	0.38	4.80	22.6	92	3.30	0.208	0.201	5.4	0.26	2253	1270	143	44	B	F	0.1843	169.6	1.72	897	17.2	162.9	1.65	764	18.5	152.3	1.54	670	19.3	137.0	1.39
95	104	884	18.2	17.5	15.1	16.2	16.8	2.47	5.8	9.5	0.37	5.06	23.1	91	3.36	0.207	0.201	5.4	0.27	2297	1270	143	45	B	F	0.2003	177.1	1.71	865	17.8	170.6	1.64	752	18.9	160.6	1.55	670	19.7	146.3	1.41
100	109	851	18.8	18.1	15.5	16.6	17.1	2.53	5.9	9.7	0.37	5.31	23.6	90	3.43	0.207	0.200	5.4	0.27	2335	1270	144	45	B	F	0.2166	184.3	1.69	836	18.3	177.8	1.63	739	19.4	168.4	1.55	667	20.0	154.9	1.42
105	114	819	19.3	18.6	15.9	16.9	17.4	2.59	6.0	10.0	0.37	5.57	24.1	90	3.49	0.207	0.200	5.5	0.28	2369	1270	144	46	B	F	0.2327	190.6	1.67	806	18.8	184.1	1.62	724	19.8	175.3	1.54	661	20.4	162.7	1.43
110	119	789	19.9	19.1	16.2	17.2	17.8	2.65	6.1	10.2	0.37	5.82	24.4	89	3.56	0.207	0.200	5.5	0.28	2398	1270	144	46	B	F	0.2488	196.3	1.65	778	19.3	190.0	1.60	707	20.2	181.5	1.53	652	20.8	169.7	1.43
115	124	761	20.4	19.6	16.5	17.5	18.1	2.71	6.2	10.3	0.37	6.07	24.8	88	3.62	0.207	0.201	5.5	0.29	2424	1270	143	46	B	F	0.2648	201.5	1.63	752	19.8	195.3	1.58	691	20.6	187.2	1.51	642	21.2	176.1	1.42
120	129	735	20.9	20.1	16.8	17.8	18.3	2.76	6.2	10.5	0.37	6.32	25.1	87	3.69	0.207	0.201	5.5	0.29	2447	1270	143	46	B	F	0.2808	206.4	1.60	727	20.2	200.2	1.55	674	21.0	192.4	1.49	631	21.6	181.9	1.41
125	134	711	21.3	20.5	17.1	18.1	18.6	2.82	6.3	10.7	0.37	6.56	25.4	86	3.75	0.208	0.202	5.5	0.30	2468	1270	143	47	B	F	0.2966	210.9	1.58	705	20.7	204.8	1.53	658	21.4	197.2	1.47	620	21.9	187.3	1.40
130	139	687	21.8	21.0	17.3	18.3	18.8	2.87	6.4	10.8	0.37	6.80	25.6	85	3.82	0.208	0.202	5.5	0.30	2487	1270	142	47	B	F	0.3122	214.5	1.55	682	21.1	208.5	1.50	641	21.8	201.1	1.45	607	22.3	191.8	1.38
135	144	666	22.2	21.4	17.6	18.6	19.1	2.92	6.5	10.9	0.37	7.04	25.9	85	3.87	0.209	0.203	5.5	0.30	2503	1270	141	47	B	F	0.3276	218.2	1.52	661	21.6	212.2	1.48	625	22.2	205.1	1.43	595	22.7	196.3	1.37
140	149	646	22.7	21.9	17.8	18.8	19.3	2.97	6.5	11.0	0.37	7.27	26.1	84	3.93	0.210	0.204	5.5	0.30	2518	1270	141	47	B	F	0.3430	221.6	1.49	642	22.0	215.6	1.45	610	22.6	208.6	1.40	583	23.0	200.3	1.35
145	154	627	23.1	22.3	18.0	19.0	19.5	3.01	6.6	11.1	0.37	7.50	26.2	83	3.99	0.210	0.205	5.5	0.31	2532	1270	140	47	B	F	0.3581	224.5	1.46	624	22.4	218.6	1.42	595	23.0	211.7	1.38	571	23.4	203.8	1.33
150	159	609	23.5	22.7	18.2	19.2	19.7	3.06	6.7	11.2	0.37	7.73	26.4	82	4.05	0.211	0.206	5.4	0.31	2545	1270	139	47	B	F	0.3727	227.0	1.43	606	22.8	221.2	1.39	581	23.3	214.4	1.35	559	23.7	206.9	1.30
155	164	592	23.9	23.1	18.4	19.4	19.9	3.10	6.7	11.3	0.37	7.95	26.5	81	4.11	0.212	0.207	5.4	0.31	2557	1270	139	47	B	F	0.3873	229.3	1.40	589	23.2	223.5	1.36	567	23.7	216.9	1.32	547	24.1	209.7	1.28
160	169	577	24.3	23.5	18.6	19.6	20.1	3.15	6.8	11.3	0.37	8.17	26.7	81	4.16	0.213	0.207	5.4	0.31	2569	1270	138	47	B	F	0.4016	231.7	1.37	575	23.5	226.0	1.34	554	24.0	219.4	1.30	537	24.4	212.6	1.26
165	174	562	24.7	23.8	18.8	19.7	20.2	3.19	6.9	11.4	0.37	8.39	26.8	80	4.22	0.214	0.208	5.4	0.31	2579	1270	138	47	B	F	0.4157	233.6	1.34	560	23.9	227.8	1.31	542	24.3	221.4	1.27	526	24.7	214.9	1.24
170	179	548	25.0	24.2	19.0	19.9	20.4	3.23	6.9	11.5	0.37	8.60	27.0	79	4.27	0.215	0.209	5.4	0.31	2590	1270	137	47	B	F	0.4294	235.3	1.32	546	24.3	229.6	1.28	530	24.7	223.2	1.25	515	25.0	216.9	1.21
175	184	535	25.4	24.5	19.1	20.1	20.6	3.27	7.0	11.5	0.37	8.81	27.1	78	4.32	0.216	0.210	5.4	0.32	2600	1270	136	47	B	F	0.4428	236.9	1.29	534	24.6	231.2	1.26	518	25.0	224.8	1.22	505	25.3	218.9	1.19
180	189	523	25.7	24.9	19.3	20.2	20.7	3.31	7.0	11.5	0.37	9.02	27.2	78	4.37	0.216	0.211	5.4	0.32	2609	1270	136	47	B	F	0.4560	238.5	1.26	522	24.9	232.8	1.23	508	25.3	226.5	1.20	496	25.6	220.8	1.17
		SI = 12 m Initial Density = 2000 stems/ha																																						
5	14	1991	1.7	1.6	2.1	2.4	2.5	0.72	1.7	0.3	0.83	0.41	0.5	149	2.24	0.919	0.892	0.4	0.00	289	1514	19	8	A	F	0.0003	0.5	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	19	1969	3.3	3.1	3.2	3.7	3.8	0.84	2.3	0.8	0.74	0.56	1.7	115	2.25	0.614	0.594	0.9	0.02	437	1514	35	11	A	F	0.0014	2.8	0.15	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	24	1935	4.6	4.3	4.3	4.9	5.1	0.96	2.9	1.4	0.67	0.75	3.3	108	2.27	0.466	0.448	1.5	0.03	611	1514	52	15	A	F	0.0039	7.5	0.32	23	8.8	0.3	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	29	1892	5.9	5.5	5.3	6.0	6.3	1.09	3.3	2.1	0.60	0.97	5.1	106	2.30	0.380	0.366	2.1	0.05	797	1514	69	18	A	F	0.0079	14.9	0.52	264	8.9	4.1	0.14	2	12.3	0.1	0.00	0	0.0	0.0	0.00
25	34	1840	7.0	6.6	6.3	7.1	7.4	1.21	3.6	2.8	0.55	1.20	7.1	105	2.33	0.327	0.314	2.7	0.08	986	1514	83	22	A	F	0.0134	24.6	0.73	629	9.2	12.6	0.37	21	12.9	1.0	0.03	2	14.4	0.1	0.00
30	39	1781	8.1	7.6	7.2	8.2	8.5	1.32	3.9	3.5	0.51	1.45	9.1	104	2.37	0.291	0.279	3.2	0.10	1171	1514	97	26	A	F	0.0203	36.2	0.93	923	9.7	24.3	0.63	88	13.3	4.8	0.12	18	14.8	1.1	0.03
35	44	1717	9.1	8.6	8.1	9.1	9.5	1.43	4.1	4.2	0.48	1.70	11.1	103	2.41	0.265	0.254	3.7	0.12	1347	1514	109	29	A	F	0.0285	49.0	1.12	1112	10.3	37.6	0.86	205	13.6	13.0	0.30	63	15.1	4.4	0.10
40	49	1651	10.0	9.5	8.9	10.0	10.4	1.53	4.3	4.9	0.46	1.95	12.9	103	2.46	0.247	0.237	4.1	0.14	1510	1514	119	32	B	F	0.0380	62.7	1.28	1220	10.9	51.8	1.06	345	13.9	25.0	0.51	140	15.4	11.1	0.23
45	54	1582	10.9	10.3	9.7	10.8	11.2	1.63	4.4	5.5	0.44	2.21	14.6	102	2.51	0.233	0.224	4.4	0.16	1659	1514	127	35	B	F	0.0484	76.6	1.42	1271	11.5	66.3	1.23	481	14.3	39.5	0.73	238	15.7	21.2	0.39
50	59	1514	11.7	11.1	10.4	11.5	12.0	1.72	4.6	6.0	0.42	2.48	16.2	101	2.57	0.223	0.214	4.7	0.18	1794	1514	134	37	B	F	0.0598	90.6	1.54	1286	12.1	80.8	1.37	599	14.7	55.2	0.94	342	16.0	34.0	0.58
55	64	1446	12.5	11.9	11.1	12.2	12.7	1.81	4.7	6.6	0.41	2.74	17.7	100	2.63	0.215	0.207	5.0	0.20	1913	1514	140	40	B	F	0.0721	104.2	1.63	1276	12.7	94.8	1.49	693	15.1	71.2	1.12	439	16.3	48.3	0.76
60	69	1380	13.2	12.6	11.7	12.8	13.4	1.90	4.8	7.1	0.40	3.00	19.0	99	2.69	0.210	0.201	5.2	0.22	2019	1514	145	41	B	F	0.0850	117.3	1.70	1252	13.3	108.3	1.57	762	15.5	86.7	1.26	523	16.7	63.3	0.92
65	74	1316	13.9	13.3	12.3	13.4	14.0	1.98	5.0	7.5	0.39	3.27	20.1	98	2.76	0.205	0.197	5.4	0.23	2111	1514	148	43	B	F	0.0986	129.7	1.76	1219	13.9	121.0	1.64	809	15.9	101.5	1.38	591	17.0	78.3	1.06
70	79	1255	14.6	14.0	12.8	14.0	14.5	2.06	5.1	7.9	0.38	3.53	21.1	97	2.82	0.202	0.194	5.5	0.24	2191	1514	151	44	B	F	0.1126	141.3	1.79	1180	14.5	133.0	1.69	838	16.4	115.2	1.46	643	17.4	92.8	1.18
75	84	1196	15.3	14.6	13.3	14.5	15.0	2.14	5.2	8.3	0.38	3.79	22.0	97	2.89	0.200	0.192	5.6	0.25	2261	1514	153	45	B	F	0.1271	152.0	1.81	1137	15.1	143.9	1.72	853	16.8	127.9	1.53	680	17.8	106.4	1.27
80	89	1141	15.9	15.3	13.8	14.9	15.5	2.21	5.3	8.6	0.37	4.05	22.8	96	2.96	0.198	0.191	5.7	0.26	2321	1514	154	46	B	F	0.1420	162.0	1.82	1095	15.7	154.2	1.74	857	17.2	139.5	1.57	706	18.1	119.3	1.34
85	94	1089	16.6	15.9	14.2	15.4	16.0	2.28	5.4	9.0	0.37	4.31	23.5	95	3.03	0.197	0.190	5.8	0.27	2372	1514	155	47	B	F	0.1572	171.2	1.83	1052	16.2	163.5	1.74	854	17.7	150.2	1.60	721	18.5	131.1	1.40
90	99	1041	17.2	16.5	14.6	15.8	16.4	2.35	5.5	9.3	0.37	4.57	24.1	94	3.10	0.196	0.189	5.8	0.28	2416	1514	155	48	B	F	0.1726	179.7	1.82	1011	16.8	172.2	1.74	844	18.1	159.9	1.62	729	18.9	142.0	1.44
95	104	995	17.7	17.0	15.0	16.2	16.8	2.41	5.6	9.5	0.37	4.83	24.6	93	3.17	0.196	0.189	5.8	0.29	2454	1514	155	48	B	F	0.1881	187.2	1.80	971	17.3	179.9	1.73	830	18.5	168.5	1.62	730	19.3	151.9	1.46
100	109	952	18.3	17.6	15.4	16.5	17.1	2.48	5.7	9.8	0.36	5.08	25.0	92	3.24	0.196	0.189	5.9	0.29	2486	1514	155	48	B	F	0.2038	194.0	1.78	932	17.8	186.9	1.72	813	19.0	176.3	1.62	726	19.7	160.8	1.48
105	114	912	18.8	18.1	15.7	16.9	17.4	2.54	5.8	10.0	0.36	5.34	25.4	91	3.31	0.196	0.190	5.9	0.30	2513	1514	155	49	B	F	0.2196	200.3	1.76	896	18.3	193.3	1.70	794	19.4	183.2	1.61	718	20.1	168.8	1.48
110	119	875	19.4	18.6	16.0	17.2	17.8	2.60	5.9	10.2	0.36	5.59	25.8	90	3.38	0.197	0.190	5.9	0.30	2537	1514	154	49	B	F	0.2353	205.9	1.73	862	18.8	199.1	1.68	775	19.8	189.6	1.60	708	20.4	176.1	1.48
115	124	840	19.9	19.1	16.4	17.5	18.1	2.65	6.0	10.4	0.36	5.83	26.1	89	3.45	0.197	0.191	5.8	0.31	2557	1514	153	49	B	F	0.2511	210.9	1.70	829	19.3	204.2	1.65	754	20.2	195.1	1.58	696	20.8	182.5	1.47
120	129	808	20.4	19.6	16.6	17.8	18.3	2.71	6.1	10.5	0.36	6.08	26.3	88	3.52	0.198	0.192	5.8	0.31	2574	1514	152	49	B	F	0.2667	215.5	1.67	799	19.8	208.9	1.62	734	20.6	200.3	1.56	683	21.2	188.5	1.46
125	134	778	20.9	20.1	16.9	18.0	18.6	2.76	6.2	10.7	0.36	6.32	26.6	87	3.59	0.199	0.193	5.8	0.31	2589	1514	151	49	B	F	0.2824	219.7	1.64	770	20.2	213.1	1.59	714	21.0	204.8	1.53	669	21.6	193.8	1.45
130	139	750	21.3	20.5	17.2	18.3	18.8	2.82	6.2	10.8	0.36	6.56	26.8	86	3.65	0.200	0.194	5.8	0.31	2602	1514	150	49	B	F	0.2977	223.3	1.61	743	20.7	216.9	1.56	694	21.4	208.9	1.50	654	21.9	198.5	1.43
135	144	724	21.8	21.0	17.4	18.5	19.1	2.87	6.3	10.9	0.36	6.80	27.0	86	3.72	0.201	0.195	5.8	0.32	2614	1514	149	49	B	F	0.3131	226.7	1.58	718	21.1	220.3	1.53	675	21.8	212.5	1.48	640	22.3	202.8	1.41
140	149	700	22.2	21.4	17.6	18.7	19.3	2.92	6.4	11.0	0.36	7.03	27.1	85	3.78	0.202	0.196	5.8	0.32	2624	1514	148	49	B	F	0.3283	229.8	1.54	695	21.5	223.5	1.50	657	22.2	215.9	1.45	626	22.6	206.7	1.39
145	154	677	22.6	21.8	17.9	18.9	19.5	2.96	6.5	11.1	0.36	7.26	27.3	84	3.84	0.203	0.197	5.7	0.32	2633	1514	147	49	B	F	0.3431	232.3	1.51	673	21.9	226.1	1.47	639	22.6	218.7	1.42	611	23.0	210.0	1.37
150	159	656	23.1	22.3	18.1	19.1	19.7	3.01	6.5	11.2	0.36	7.49	27.4	83	3.90	0.204	0.198	5.7	0.32	2641	1514	146	49	B	F	0.3579	234.8	1.48	652	22.4	228.6	1.44	623	22.9	221.4	1.39	597	23.4	213.1	1.34
155	164	636	23.5	22.7	18.3	19.3	19.9	3.06	6.6	11.3	0.36	7.71	27.5	82	3.97	0.205	0.199	5.7	0.32	2649	1514	145	49	B	F	0.3723	236.8	1.45	633	22.7	230.7	1.41	606	23.3	223.7	1.37	584	23.7	215.9	1.32
160	169	617	23.9	23.0	18.5	19.5	20.1	3.10	6.7	11.4	0.37	7.93	27.6	81	4.03	0.206	0.201	5.6	0.32	2656	1514	144	49	B	F	0.3865	238.5	1.41	614	23.1	232.5	1.38	591	23.6	225.6	1.34	570	24.0	218.1	1.29
165	174	600	24.2	23.4	18.7	19.7	20.2	3.14	6.7	11.4	0.37	8.15	27.7	81	4.08	0.207	0.202	5.6	0.32	2663	1514	143	49	B	F	0.4005	240.3	1.38	598	23.5	234.3	1.35	576	24.0	227.5	1.31	558	24.3	220.5	1.27
170	179	584	24.6	23.8	18.8	19.9	20.4	3.18	6.8	11.5	0.37	8.37	27.8	80	4.14	0.208	0.203	5.6	0.32	2669	1514	143	49	B	F	0.4144	242.0	1.35	582	23.9	236.0	1.32	563	24.3	229.3	1.28	546	24.7	222.5	1.24
175	184	569	25.0	24.2	19.0	20.0	20.6	3.22	6.8	11.5	0.37	8.58	27.9	79	4.19	0.210	0.204	5.6	0.32	2676	1514	142	49	B	F	0.4278	243.4	1.32	567	24.2	237.5	1.29	550	24.6	230.9	1.26	534	25.0	224.4	1.22
180	189	555	25.3	24.5	19.1	20.2	20.7	3.26	6.9	11.6	0.37	8.79	28.0	78	4.24	0.211	0.205	5.6	0.33	2682	1514	141	49	B	F	0.4409	244.7	1.30	553	24.6	238.8	1.26	538	25.0	232.3	1.23	524	25.3	226.1	1.20

Table A39. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh	Total	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
age	age	N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 12 m Initial Density = 3000 stems/ha																																								
5	14	2981	1.5	1.4	2.1	2.4	2.5	0.71	1.6	0.4	0.81	0.39	0.6	162	1.83	0.753	0.729	0.4	0.01	418	2071	25	12	A	F	0.0002	0.6	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	19	2937	3.0	2.8	3.1	3.7	3.8	0.81	2.2	0.8	0.72	0.52	2.0	123	1.85	0.505	0.486	1.2	0.02	605	2071	47	15	A	F	0.0011	3.3	0.18	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	24	2869	4.2	3.9	4.2	4.9	5.1	0.92	2.6	1.4	0.64	0.69	4.0	115	1.87	0.384	0.368	2.0	0.04	820	2071	69	20	A	F	0.0031	8.9	0.37	9	8.6	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	29	2781	5.4	5.0	5.2	6.0	6.3	1.04	3.0	2.1	0.57	0.87	6.3	112	1.90	0.315	0.302	2.7	0.07	1047	2071	90	24	A	F	0.0063	17.6	0.61	214	8.6	3.0	0.10	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	34	2678	6.4	6.0	6.2	7.1	7.4	1.15	3.3	2.9	0.52	1.08	8.7	110	1.93	0.272	0.260	3.4	0.09	1273	2071	108	29	A	F	0.0108	29.0	0.86	662	8.9	11.8	0.35	8	12.8	0.4	0.01	0	0.0	0.0	0.00
30	39	2564	7.4	7.0	7.1	8.1	8.5	1.25	3.5	3.6	0.49	1.29	11.1	109	1.97	0.243	0.232	4.1	0.12	1490	2071	125	33	B	F	0.0166	42.5	1.10	1088	9.3	25.0	0.64	52	13.0	2.7	0.07	7	14.6	0.4	0.01
35	44	2443	8.3	7.9	7.9	9.1	9.5	1.35	3.7	4.3	0.46	1.51	13.3	108	2.02	0.224	0.213	4.6	0.15	1690	2071	139	37	B	F	0.0235	57.3	1.31	1387	9.8	40.5	0.92	156	13.3	9.4	0.21	34	14.9	2.3	0.05
40	49	2318	9.2	8.7	8.7	9.9	10.4	1.45	3.9	4.9	0.43	1.74	15.5	107	2.08	0.209	0.200	5.1	0.18	1872	2071	150	40	B	F	0.0314	72.8	1.49	1564	10.3	57.1	1.17	307	13.6	20.9	0.43	97	15.1	7.3	0.15
45	54	2194	10.0	9.5	9.5	10.7	11.2	1.54	4.0	5.5	0.41	1.97	17.4	106	2.13	0.199	0.190	5.5	0.20	2033	2071	159	43	B	F	0.0404	88.6	1.65	1651	10.9	73.9	1.37	474	13.9	36.2	0.67	193	15.3	16.2	0.30
50	59	2071	10.8	10.3	10.2	11.5	12.0	1.63	4.2	6.1	0.40	2.21	19.1	105	2.20	0.192	0.183	5.8	0.22	2173	2071	166	46	B	F	0.0503	104.1	1.77	1676	11.4	90.4	1.54	631	14.2	53.7	0.91	309	15.6	28.6	0.49
55	64	1953	11.6	11.0	10.8	12.1	12.7	1.72	4.3	6.6	0.39	2.45	20.7	104	2.26	0.186	0.178	6.1	0.24	2294	2071	172	48	B	F	0.0610	119.1	1.87	1662	12.0	106.2	1.66	762	14.6	72.0	1.13	428	15.9	43.7	0.68
60	69	1840	12.3	11.8	11.4	12.8	13.4	1.80	4.4	7.1	0.38	2.70	22.0	103	2.33	0.183	0.174	6.3	0.26	2397	2071	176	50	B	F	0.0724	133.3	1.94	1624	12.6	121.2	1.76	863	15.0	89.9	1.31	537	16.2	60.0	0.87
65	74	1734	13.1	12.5	12.0	13.4	14.0	1.88	4.5	7.5	0.37	2.94	23.2	102	2.40	0.180	0.172	6.4	0.27	2484	2071	179	51	C	F	0.0845	146.6	1.99	1571	13.2	135.2	1.83	936	15.4	107.1	1.45	630	16.5	76.8	1.04
70	79	1634	13.7	13.1	12.5	13.9	14.5	1.96	4.7	7.9	0.36	3.19	24.2	101	2.47	0.178	0.170	6.5	0.28	2556	2071	180	52	C	F	0.0972	158.9	2.02	1510	13.7	148.1	1.88	982	15.8	122.9	1.56	705	16.9	93.4	1.19
75	84	1540	14.4	13.8	13.0	14.4	15.0	2.03	4.8	8.3	0.36	3.44	25.1	100	2.55	0.177	0.169	6.6	0.29	2615	2071	181	53	C	F	0.1105	170.1	2.03	1444	14.3	159.8	1.91	1007	16.2	137.3	1.64	760	17.2	109.0	1.30
80	89	1454	15.0	14.4	13.5	14.9	15.5	2.11	4.9	8.7	0.36	3.69	25.8	99	2.62	0.176	0.169	6.7	0.30	2664	2071	181	54	C	F	0.1241	180.4	2.03	1379	14.9	170.6	1.92	1017	16.6	150.5	1.69	799	17.6	123.7	1.39
85	94	1373	15.7	15.0	13.9	15.3	16.0	2.18	5.0	9.0	0.35	3.94	26.4	97	2.70	0.176	0.169	6.7	0.31	2703	2071	181	54	C	F	0.1381	189.6	2.02	1314	15.4	180.2	1.92	1014	17.0	162.1	1.73	824	17.9	137.1	1.46
90	99	1299	16.3	15.6	14.3	15.7	16.4	2.24	5.1	9.3	0.35	4.18	27.0	96	2.77	0.177	0.170	6.7	0.32	2735	2071	180	54	C	F	0.1524	198.0	2.00	1252	16.0	188.9	1.91	1002	17.4	172.6	1.75	837	18.3	149.2	1.51
95	104	1231	16.8	16.2	14.7	16.1	16.8	2.31	5.2	9.5	0.35	4.43	27.4	95	2.85	0.177	0.170	6.7	0.32	2760	2071	179	55	C	F	0.1669	205.5	1.98	1194	16.5	196.8	1.90	984	17.8	181.9	1.75	841	18.7	160.2	1.54
100	109	1168	17.4	16.7	15.1	16.4	17.1	2.37	5.3	9.8	0.35	4.68	27.8	94	2.93	0.178	0.171	6.7	0.33	2779	2071	178	55	C	F	0.1818	212.3	1.95	1138	17.0	203.8	1.87	962	18.3	190.1	1.75	837	19.0	170.0	1.56
105	114	1110	17.9	17.2	15.4	16.8	17.4	2.44	5.5	10.0	0.35	4.92	28.1	93	3.00	0.179	0.172	6.6	0.33	2794	2071	176	55	C	F	0.1967	218.3	1.92	1085	17.5	210.0	1.85	937	18.7	197.4	1.73	829	19.4	178.8	1.57
110	119	1056	18.5	17.8	15.8	17.1	17.8	2.50	5.6	10.2	0.35	5.17	28.3	92	3.08	0.180	0.173	6.6	0.33	2806	2071	174	55	C	F	0.2116	223.4	1.88	1036	18.0	215.5	1.81	910	19.1	203.7	1.71	816	19.8	186.5	1.57
115	124	1007	19.0	18.3	16.1	17.4	18.1	2.55	5.7	10.4	0.35	5.41	28.5	91	3.15	0.181	0.174	6.5	0.34	2814	2071	173	54	C	F	0.2266	228.2	1.84	990	18.5	220.4	1.78	883	19.5	209.4	1.69	801	20.2	193.4	1.56
120	129	962	19.5	18.8	16.3	17.7	18.3	2.61	5.7	10.5	0.35	5.65	28.7	90	3.22	0.183	0.176	6.5	0.34	2820	2071	171	54	C	F	0.2417	232.5	1.81	948	19.0	224.9	1.75	856	19.9	214.5	1.67	785	20.5	199.7	1.55
125	134	920	20.0	19.2	16.6	17.9	18.6	2.67	5.8	10.7	0.35	5.89	28.9	89	3.30	0.184	0.177	6.5	0.34	2824	2071	169	54	C	F	0.2566	236.1	1.76	908	19.4	228.7	1.71	829	20.3	218.8	1.64	767	20.9	205.0	1.53
130	139	882	20.5	19.7	16.9	18.2	18.8	2.72	5.9	10.8	0.35	6.12	29.0	89	3.37	0.185	0.179	6.4	0.34	2826	2071	167	54	C	F	0.2715	239.5	1.73	872	19.9	232.3	1.67	804	20.7	222.9	1.61	749	21.2	210.0	1.51
135	144	846	20.9	20.2	17.1	18.4	19.1	2.77	6.0	10.9	0.35	6.35	29.1	88	3.44	0.187	0.180	6.4	0.34	2828	2071	165	54	C	F	0.2864	242.3	1.68	838	20.3	235.2	1.64	778	21.1	226.2	1.57	730	21.6	214.1	1.49
140	149	813	21.4	20.6	17.3	18.6	19.3	2.82	6.1	11.1	0.35	6.58	29.2	87	3.51	0.188	0.182	6.3	0.34	2828	2071	164	54	C	F	0.3011	244.8	1.65	806	20.7	237.8	1.60	754	21.5	229.2	1.54	711	22.0	217.9	1.46
145	154	783	21.8	21.0	17.6	18.8	19.5	2.87	6.2	11.2	0.35	6.81	29.2	86	3.57	0.190	0.183	6.3	0.34	2828	2071	162	53	C	F	0.3157	247.2	1.61	777	21.1	240.3	1.56	731	21.8	231.9	1.51	693	22.3	221.3	1.44
150	159	754	22.2	21.4	17.8	19.0	19.7	2.92	6.2	11.2	0.35	7.04	29.3	85	3.64	0.191	0.185	6.2	0.34	2828	2071	160	53	C	F	0.3301	248.9	1.57	749	21.5	242.1	1.52	708	22.2	234.0	1.47	675	22.7	224.0	1.41
155	164	728	22.6	21.9	18.0	19.2	19.9	2.96	6.3	11.3	0.35	7.26	29.3	84	3.71	0.193	0.186	6.2	0.34	2827	2071	159	53	C	F	0.3442	250.6	1.53	724	21.9	244.0	1.49	688	22.6	236.1	1.44	658	23.0	226.7	1.38
160	169	704	23.0	22.2	18.2	19.4	20.1	3.01	6.4	11.4	0.36	7.48	29.4	83	3.77	0.194	0.188	6.1	0.34	2826	2071	157	53	C	F	0.3584	252.3	1.49	700	22.3	245.6	1.45	668	22.9	237.9	1.41	641	23.3	229.0	1.36
165	174	681	23.4	22.6	18.3	19.6	20.2	3.05	6.5	11.4	0.36	7.70	29.4	82	3.83	0.196	0.189	6.1	0.34	2826	2071	155	52	C	F	0.3721	253.4	1.46	678	22.7	246.9	1.42	649	23.3	239.3	1.38	625	23.7	231.0	1.33
170	179	660	23.8	23.0	18.5	19.7	20.4	3.10	6.5	11.5	0.36	7.91	29.4	82	3.89	0.197	0.191	6.0	0.34	2825	2071	154	52	C	F	0.3856	254.5	1.42	657	23.1	248.1	1.39	632	23.6	240.7	1.35	610	24.0	232.8	1.30
175	184	640	24.2	23.4	18.7	19.9	20.6	3.14	6.6	11.5	0.36	8.12	29.4	81	3.95	0.199	0.192	6.0	0.34	2825	2071	153	52	C	F	0.3991	255.4	1.39	637	23.5	249.0	1.35	615	23.9	241.8	1.32	595	24.3	234.2	1.27
180	189	622	24.6	23.7	18.8	20.1	20.7	3.18	6.6	11.6	0.36	8.33	29.5	80	4.01	0.200	0.194	5.9	0.34	2825	2071	151	52	C	F	0.4121	256.3	1.36	620	23.8	250.0	1.32	599	24.3	242.9	1.29	581	24.6	235.7	1.25
SI = 12 m Initial Density = 4000 stems/ha																																								
5	14	3970	1.4	1.3	2.1	2.4	2.5	0.70	1.5	0.4	0.80	0.38	0.6	173	1.59	0.654	0.632	0.5	0.01	542	2581	32	15	A	F	0.0002	0.6	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	19	3898	2.8	2.6	3.1	3.6	3.8	0.79	2.1	0.9	0.70	0.50	2.3	129	1.60	0.439	0.422	1.4	0.02	762	2581	58	19	A	F	0.0009	3.7	0.20	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	24	3790	3.9	3.7	4.1	4.8	5.1	0.90	2.5	1.5	0.62	0.65	4.6	119	1.62	0.335	0.320	2.3	0.05	1012	2581	84	24	A	F	0.0026	10.0	0.42	4	8.5	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	29	3651	5.0	4.7	5.1	6.0	6.3	1.00	2.8	2.2	0.55	0.81	7.2	116	1.65	0.276	0.263	3.2	0.08	1272	2581	109	30	A	F	0.0054	19.8	0.69	165	8.5	2.2	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	34	3490	6.0	5.7	6.1	7.1	7.4	1.10	3.0	2.9	0.50	1.00	9.9	114	1.69	0.239	0.228	4.1	0.11	1526	2581	130	35	B	F	0.0093	32.4	0.96	643	8.7	10.6	0.31	3	12.6	0.1	0.00	0	0.0	0.0	0.00
30	39	3313	7.0	6.6	7.0	8.1	8.5	1.20	3.3	3.6	0.47	1.19	12.6	112	1.74	0.215	0.204	4.8	0.14	1766	2581	149	39	B	F	0.0143	47.3	1.22	1175	9.1	24.6	0.63	30	12.9	1.5	0.04	3	14.3	0.2	0.01
35	44	3129	7.9	7.4	7.8	9.0	9.5	1.30	3.4	4.3	0.44	1.39	15.1	111	1.79	0.198	0.188	5.4	0.17	1983	2581	164	44	B	F	0.0203	63.6	1.45	1579	9.5	41.6	0.95	114	13.1	6.7	0.15	19	14.7	1.2	0.03
40	49	2942	8.7	8.2	8.6	9.9	10.4	1.39	3.6	4.9	0.41	1.60	17.5	110	1.84	0.187	0.177	5.9	0.20	2175	2581	177	47	B	F	0.0274	80.5	1.65	1829	10.0	60.0	1.23	260	13.4	17.0	0.35	66	14.9	4.8	0.10
45	54	2758	9.5	9.0	9.3	10.7	11.2	1.48	3.7	5.5	0.40	1.82	19.6	109	1.90	0.178	0.170	6.3	0.23	2342	2581	186	50	C	F	0.0354	97.6	1.81	1957	10.5	78.6	1.46	440	13.7	32.1	0.60	151	15.1	12.2	0.23
50	59	2581	10.3	9.8	10.0	11.4	12.0	1.57	3.9	6.1	0.38	2.04	21.4	108	1.97	0.173	0.164	6.7	0.25	2484	2581	193	53	C	F	0.0442	114.2	1.94	2001	11.0	96.7	1.64	623	14.0	50.5	0.86	267	15.4	23.7	0.40
55	64	2412	11.0	10.5	10.6	12.1	12.7	1.65	4.0	6.6	0.37	2.27	23.0	106	2.04	0.168	0.160	6.9	0.27	2603	2581	198	55	C	F	0.0539	130.1	2.04	1987	11.6	114.0	1.79	785	14.3	70.2	1.10	396	15.7	38.5	0.60
60	69	2253	11.7	11.2	11.2	12.7	13.4	1.73	4.2	7.1	0.36	2.50	24.4	105	2.11	0.166	0.158	7.1	0.29	2701	2581	202	56	C	F	0.0644	145.1	2.11	1939	12.1	130.1	1.89	916	14.7	90.0	1.31	523	15.9	55.5	0.81
65	74	2105	12.4	11.9	11.8	13.3	14.0	1.81	4.3	7.5	0.36	2.73	25.6	104	2.18	0.164	0.156	7.3	0.30	2780	2581	203	57	C	F	0.0755	158.9	2.15	1870	12.7	145.0	1.96	1012	15.0	108.8	1.47	636	16.2	73.3	0.99
70	79	1968	13.1	12.5	12.3	13.8	14.5	1.89	4.4	7.9	0.35	2.97	26.6	103	2.25	0.163	0.155	7.3	0.32	2844	2581	204	58	C	F	0.0872	171.6	2.18	1790	13.2	158.6	2.01	1077	15.4	126.4	1.60	730	16.5	91.2	1.16
75	84	1842	13.8	13.2	12.8	14.3	15.0	1.96	4.5	8.3	0.35	3.20	27.4	102	2.33	0.163	0.155	7.4	0.33	2894	2581	204	59	C	F	0.0995	183.2	2.19	1706	13.8	171.0	2.04	1116	15.8	142.4	1.70	802	16.9	108.4	1.29
80	89	1726	14.4	13.8	13.3	14.8	15.5	2.04	4.6	8.6	0.34	3.44	28.1	101	2.41	0.163	0.155	7.4	0.33	2933	2581	203	59	C	F	0.1122	193.6	2.18	1621	14.3	182.1	2.05	1133	16.2	156.7	1.76	855	17.2	124.4	1.40
85	94	1620	15.0	14.4	13.7	15.2	16.0	2.11	4.8	8.9	0.34	3.68	28.7	100	2.48	0.163	0.156	7.4	0.34	2962	2581	202	60	C	F	0.1253	203.0	2.16	1538	14.8	192.0	2.05	1134	16.6	169.5	1.81	890	17.5	139.2	1.48
90	99	1523	15.6	15.0	14.1	15.6	16.4	2.17	4.9	9.2	0.34	3.92	29.2	98	2.56	0.164	0.157	7.4	0.35	2983	2581	200	60	C	F	0.1388	211.4	2.14	1458	15.4	200.9	2.03	1123	17.0	180.7	1.83	911	17.9	152.6	1.54
95	104	1434	16.2	15.5	14.5	16.0	16.8	2.24	5.0	9.5	0.34	4.16	29.5	97	2.64	0.165	0.158	7.3	0.35	2998	2581	198	60	C	F	0.1526	218.8	2.11	1382	15.9	208.8	2.01	1103	17.4	190.6	1.84	919	18.2	164.5	1.58
100	109	1354	16.8	16.1	14.9	16.4	17.1	2.30	5.1	9.7	0.34	4.40	29.9	96	2.72	0.166	0.159	7.3	0.36	3007	2581	196	60	C	F	0.1665	225.5	2.07	1313	16.4	215.9	1.98	1079	17.8	199.4	1.83	919	18.6	175.2	1.61
105	114	1280	17.3	16.6	15.2	16.7	17.4	2.36	5.2	10.0	0.34	4.63	30.1	95	2.80	0.167	0.160	7.2	0.36	3012	2581	193	59	C	F	0.1807	231.3	2.03	1246	16.9	222.1	1.95	1050	18.2	207.0	1.82	912	19.0	184.7	1.62
110	119	1212	17.8	17.1	15.5	17.0	17.8	2.42	5.3	10.2	0.34	4.87	30.3	94	2.87	0.169	0.162	7.2	0.36	3014	2581	191	59	C	F	0.1950	236.4	1.99	1185	17.4	227.4	1.91	1019	18.6	213.6	1.80	899	19.3	193.0	1.62
115	124	1150	18.3	17.6	15.8	17.3	18.1	2.48	5.4	10.4	0.34	5.11	30.4	93	2.95	0.170	0.163	7.1	0.36	3013	2581	188	59	C	F	0.2094	240.8	1.94	1127	17.9	232.2	1.88	987	19.0	219.3	1.77	883	19.7	200.3	1.62
120	129	1094	18.9	18.1	16.1	17.6	18.3	2.54	5.5	10.5	0.34	5.34	30.5	92	3.02	0.172	0.165	7.0	0.36	3011	2581	186	58	C	F	0.2239	244.9	1.90	1075	18.3	236.5	1.84	956	19.4	224.5	1.74	865	20.0	206.9	1.61
125	134	1042	19.3	18.6	16.4	17.8	18.6	2.59	5.6	10.7	0.34	5.57	30.6	91	3.10	0.174	0.167	7.0	0.36	3006	2581	183	58	C	F	0.2383	248.3	1.86	1026	18.8	240.1	1.79	924	19.8	228.9	1.71	845	20.4	212.6	1.59
130	139	994	19.8	19.1	16.6	18.1	18.8	2.65	5.7	10.8	0.34	5.80	30.7	90	3.17	0.175	0.168	6.9	0.36	3001	2581	180	58	C	F	0.2527	251.2	1.81	981	19.3	243.2	1.75	893	20.2	232.6	1.68	823	20.8	217.4	1.57
135	144	950	20.3	19.5	16.9	18.3	19.1	2.70	5.8	10.9	0.34	6.03	30.7	89	3.24	0.177	0.170	6.8	0.36	2995	2581	178	57	C	F	0.2671	253.7	1.76	939	19.7	245.9	1.71	862	20.5	235.8	1.64	801	21.1	221.7	1.54
140	149	910	20.7	20.0	17.1	18.5	19.3	2.75	5.9	11.0	0.34	6.26	30.7	88	3.31	0.179	0.172	6.7	0.36	2988	2581	176	57	C	F	0.2813	256.0	1.72	901	20.1	248.4	1.67	834	20.9	238.7	1.60	780	21.5	225.6	1.52
145	154	873	21.2	20.4	17.3	18.8	19.5	2.80	6.0	11.1	0.34	6.48	30.7	87	3.38	0.180	0.173	6.7	0.36	2981	2581	173	57	C	F	0.2955	258.0	1.68	865	20.5	250.5	1.63	807	21.3	241.3	1.57	759	21.8	229.0	1.49
150	159	839	21.6	20.8	17.5	19.0	19.7	2.85	6.0	11.2	0.35	6.70	30.7	86	3.45	0.182	0.175	6.6	0.36	2974	2581	171	56	C	F	0.3095	259.7	1.64	832	21.0	252.4	1.59	781	21.7	243.5	1.53	739	22.1	232.0	1.46
155	164	807	22.0	21.2	17.7	19.1	19.9	2.89	6.1	11.3	0.35	6.92	30.7	85	3.52	0.184	0.177	6.5	0.36	2967	2581	169	56	C	F	0.3234	261.0	1.59	801	21.3	253.8	1.55	756	22.0	245.2	1.50	718	22.5	234.4	1.43
160	169	778	22.4	21.6	17.9	19.3	20.1	2.94	6.2	11.4	0.35	7.14	30.7	85	3.59	0.186	0.179	6.5	0.36	2961	2581	167	56	C	F	0.3371	262.3	1.55	773	21.7	255.2	1.51	733	22.4	246.8	1.46	699	22.8	236.7	1.40
165	174	750	22.8	22.0	18.1	19.5	20.2	2.98	6.3	11.4	0.35	7.36	30.7	84	3.65	0.187	0.180	6.4	0.36	2954	2581	165	55	C	F	0.3507	263.0	1.51	746	22.1	256.0	1.47	710	22.7	247.9	1.43	680	23.1	238.3	1.37
170	179	725	23.2	22.4	18.3	19.7	20.4	3.03	6.3	11.5	0.35	7.57	30.7	83	3.71	0.189	0.182	6.4	0.36	2948	2581	163	55	C	F	0.3640	263.9	1.48	721	22.5	257.0	1.44	690	23.0	249.1	1.39	662	23.5	240.0	1.34
175	184	702	23.6	22.8	18.4	19.8	20.6	3.07	6.4	11.5	0.35	7.78	30.7	82	3.77	0.190	0.184	6.3	0.36	2943	2581	162	55	C	F	0.3771	264.7	1.44	699	22.8	258.0	1.40	670	23.4	250.2	1.36	646	23.8	241.6	1.31
180	189	680	24.0	23.1	18.6	20.0	20.7	3.11	6.5	11.6	0.35	7.99	30.6	81	3.83	0.192	0.185	6.3	0.36	2938	2581	160	54	C	F	0.3900	265.2	1.40	677	23.2	258.5	1.37	652	23.7	250.9	1.33	629	24.1	242.7	1.29

Table A40. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Utilization standard (Util. std.) = 0/0 (total volume)

Bh age	Total age	N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai
SI = 12 m Initial Density = 5000 stems/ha																												
5	14	4957	1.3	1.2	2.0	2.4	2.5	0.69	1.5	0.4	0.78	0.38	0.7	183	1.42	0.586	0.565	0.6	0.01	664	3058	37	19	A	F	0.0001	0.7	0.05
10	19	4856	2.6	2.4	3.0	3.6	3.8	0.78	2.0	0.9	0.68	0.48	2.6	134	1.44	0.394	0.378	1.6	0.03	913	3058	68	23	A	F	0.0008	4.0	0.21
15	24	4703	3.7	3.5	4.1	4.8	5.1	0.88	2.4	1.5	0.60	0.62	5.1	123	1.46	0.301	0.288	2.7	0.06	1193	3058	98	29	A	F	0.0023	10.9	0.46
20	29	4508	4.8	4.5	5.0	6.0	6.3	0.98	2.7	2.2	0.54	0.77	8.0	119	1.49	0.249	0.237	3.7	0.09	1480	3058	126	35	B	F	0.0048	21.5	0.75
25	34	4282	5.7	5.4	6.0	7.1	7.4	1.07	2.9	2.9	0.49	0.94	11.0	117	1.53	0.217	0.206	4.6	0.12	1757	3058	150	40	B	F	0.0082	35.2	1.04
30	39	4039	6.6	6.2	6.9	8.1	8.5	1.17	3.1	3.6	0.45	1.12	13.9	115	1.57	0.195	0.185	5.4	0.16	2013	3058	171	45	B	F	0.0127	51.3	1.32
35	44	3787	7.5	7.1	7.7	9.0	9.5	1.26	3.2	4.3	0.42	1.31	16.7	114	1.62	0.181	0.171	6.1	0.19	2243	3058	187	50	B	F	0.0181	68.7	1.57
40	49	3536	8.3	7.9	8.5	9.8	10.4	1.35	3.4	4.9	0.40	1.51	19.2	112	1.68	0.171	0.162	6.7	0.22	2442	3058	200	53	C	F	0.0245	86.8	1.78
45	54	3292	9.1	8.6	9.2	10.6	11.2	1.44	3.5	5.5	0.38	1.71	21.4	111	1.74	0.164	0.155	7.1	0.25	2611	3058	210	56	C	F	0.0318	104.8	1.95
50	59	3058	9.9	9.4	9.9	11.4	12.0	1.52	3.7	6.1	0.37	1.92	23.3	110	1.81	0.159	0.151	7.4	0.28	2752	3058	216	59	C	F	0.0400	122.2	2.08
55	64	2839	10.6	10.1	10.5	12.0	12.7	1.60	3.8	6.6	0.36	2.13	25.0	109	1.88	0.156	0.148	7.7	0.30	2867	3058	221	61	C	F	0.0489	138.9	2.18
60	69	2635	11.3	10.7	11.1	12.7	13.4	1.68	3.9	7.0	0.35	2.35	26.4	107	1.95	0.154	0.146	7.9	0.31	2960	3058	224	62	C	F	0.0586	154.4	2.24
65	74	2447	12.0	11.4	11.6	13.2	14.0	1.76	4.1	7.5	0.35	2.57	27.6	106	2.02	0.153	0.145	8.0	0.33	3032	3058	225	63	C	F	0.0689	168.7	2.29
70	79	2275	12.6	12.1	12.2	13.8	14.5	1.84	4.2	7.9	0.34	2.80	28.6	105	2.10	0.152	0.144	8.0	0.34	3088	3058	225	64	C	F	0.0799	181.7	2.31
75	84	2118	13.3	12.7	12.6	14.3	15.0	1.91	4.3	8.3	0.34	3.03	29.4	104	2.17	0.152	0.145	8.1	0.35	3129	3058	224	64	C	F	0.0914	193.6	2.31
80	89	1974	13.9	13.3	13.1	14.7	15.5	1.98	4.4	8.6	0.34	3.26	30.0	102	2.25	0.153	0.145	8.0	0.36	3159	3058	222	64	C	F	0.1034	204.1	2.30
85	94	1844	14.5	13.9	13.5	15.2	16.0	2.05	4.6	8.9	0.33	3.49	30.5	101	2.33	0.153	0.146	8.0	0.37	3179	3058	219	64	C	F	0.1158	213.5	2.28
90	99	1726	15.1	14.5	13.9	15.6	16.4	2.12	4.7	9.2	0.33	3.72	31.0	100	2.41	0.155	0.147	8.0	0.37	3191	3058	217	64	C	F	0.1286	221.9	2.25
95	104	1619	15.7	15.0	14.3	16.0	16.8	2.18	4.8	9.5	0.33	3.95	31.3	99	2.49	0.156	0.148	7.9	0.37	3197	3058	214	64	C	F	0.1416	229.3	2.21
100	109	1522	16.2	15.6	14.7	16.3	17.1	2.24	4.9	9.7	0.33	4.18	31.5	98	2.56	0.157	0.150	7.8	0.38	3198	3058	211	64	C	F	0.1550	235.9	2.17
105	114	1433	16.8	16.1	15.0	16.6	17.4	2.31	5.0	9.9	0.33	4.41	31.7	97	2.64	0.159	0.151	7.7	0.38	3195	3058	208	63	C	F	0.1685	241.5	2.12
110	119	1353	17.3	16.6	15.3	16.9	17.8	2.37	5.1	10.1	0.33	4.64	31.9	96	2.72	0.160	0.153	7.7	0.38	3189	3058	204	63	C	F	0.1823	246.6	2.08
115	124	1279	17.8	17.1	15.6	17.2	18.1	2.42	5.2	10.3	0.33	4.87	31.9	94	2.80	0.162	0.155	7.6	0.38	3181	3058	201	62	C	F	0.1961	250.8	2.03
120	129	1213	18.3	17.6	15.9	17.5	18.3	2.48	5.3	10.5	0.33	5.10	32.0	93	2.87	0.164	0.157	7.5	0.38	3171	3058	198	62	C	F	0.2100	254.7	1.98
125	134	1152	18.8	18.1	16.1	17.8	18.6	2.54	5.4	10.6	0.33	5.33	32.1	92	2.95	0.166	0.158	7.4	0.38	3159	3058	195	61	C	F	0.2240	258.0	1.93
130	139	1096	19.3	18.6	16.4	18.0	18.8	2.59	5.5	10.8	0.33	5.55	32.1	91	3.02	0.168	0.160	7.3	0.38	3147	3058	192	61	C	F	0.2379	260.7	1.88
135	144	1045	19.8	19.0	16.6	18.3	19.1	2.64	5.6	10.9	0.34	5.78	32.0	90	3.09	0.169	0.162	7.2	0.38	3135	3058	189	60	C	F	0.2518	263.1	1.83
140	149	998	20.2	19.5	16.9	18.5	19.3	2.69	5.7	11.0	0.34	6.00	32.0	89	3.17	0.171	0.164	7.1	0.38	3122	3058	186	60	C	F	0.2656	265.1	1.78
145	154	955	20.7	19.9	17.1	18.7	19.5	2.74	5.8	11.1	0.34	6.22	32.0	88	3.24	0.173	0.166	7.0	0.38	3110	3058	183	59	C	F	0.2794	266.8	1.73
150	159	915	21.1	20.3	17.3	18.9	19.7	2.79	5.9	11.2	0.34	6.44	31.9	87	3.31	0.175	0.168	7.0	0.38	3098	3058	181	59	C	F	0.2931	268.2	1.69
155	164	878	21.5	20.7	17.5	19.1	19.9	2.84	6.0	11.3	0.34	6.65	31.9	87	3.37	0.177	0.170	6.9	0.38	3086	3058	178	58	C	F	0.3066	269.2	1.64
160	169	845	21.9	21.1	17.7	19.2	20.1	2.88	6.0	11.4	0.34	6.87	31.8	86	3.44	0.179	0.171	6.8	0.38	3074	3058	176	58	C	F	0.3200	270.4	1.60
165	174	813	22.3	21.5	17.9	19.4	20.2	2.93	6.1	11.4	0.34	7.08	31.8	85	3.51	0.181	0.173	6.7	0.37	3063	3058	173	58	C	F	0.3333	271.0	1.56
170	179	784	22.7	21.9	18.0	19.6	20.4	2.97	6.2	11.5	0.35	7.29	31.7	84	3.57	0.182	0.175	6.7	0.37	3053	3058	171	57	C	F	0.3463	271.5	1.52
175	184	758	23.1	22.3	18.2	19.7	20.6	3.01	6.2	11.5	0.35	7.49	31.7	83	3.63	0.184	0.177	6.6	0.37	3043	3058	169	57	C	F	0.3592	272.3	1.48
180	189	733	23.4	22.6	18.3	19.9	20.7	3.05	6.3	11.6	0.35	7.70	31.6	82	3.69	0.186	0.178	6.5	0.37	3034	3058	167	56	C	F	0.3719	272.6	1.44
SI = 12 m Initial Density = 6000 stems/ha																												
5	14	5944	1.3	1.2	2.0	2.4	2.5	0.69	1.4	0.4	0.77	0.37	0.7	191	1.30	0.536	0.516	0.7	0.01	784	3513	43	22	A	F	0.0001	0.7	0.05
10	19	5810	2.5	2.3	3.0	3.6	3.8	0.77	1.9	0.9	0.67	0.47	2.8	138	1.31	0.361	0.346	1.8	0.03	1060	3513	77	27	A	F	0.0007	4.3	0.23
15	24	5608	3.6	3.3	4.0	4.8	5.1	0.86	2.3	1.5	0.59	0.60	5.6	127	1.34	0.277	0.263	3.0	0.06	1365	3513	111	33	B	F	0.0021	11.7	0.49
20	29	5353	4.6	4.3	5.0	6.0	6.3	0.96	2.5	2.2	0.52	0.74	8.7	122	1.37	0.229	0.217	4.1	0.10	1675	3513	142	40	B	F	0.0043	23.0	0.80
25	34	5060	5.5	5.2	5.9	7.0	7.4	1.05	2.8	2.9	0.47	0.90	12.0	119	1.41	0.200	0.189	5.1	0.14	1971	3513	168	45	B	F	0.0074	37.6	1.11
30	39	4746	6.4	6.0	6.8	8.0	8.5	1.14	2.9	3.6	0.44	1.06	15.1	117	1.45	0.181	0.171	6.0	0.18	2241	3513	190	51	C	F	0.0115	54.6	1.41
35	44	4425	7.2	6.8	7.6	9.0	9.5	1.23	3.1	4.3	0.41	1.24	18.0	116	1.50	0.168	0.158	6.7	0.21	2479	3513	208	55	C	F	0.0165	73.0	1.67
40	49	4108	8.0	7.6	8.3	9.8	10.4	1.32	3.2	4.9	0.39	1.43	20.6	114	1.56	0.159	0.150	7.3	0.24	2683	3513	221	59	C	F	0.0224	92.0	1.88
45	54	3802	8.8	8.3	9.1	10.6	11.2	1.40	3.4	5.5	0.37	1.62	23.0	113	1.62	0.153	0.144	7.8	0.27	2852	3513	231	62	C	F	0.0291	110.8	2.06
50	59	3513	9.5	9.0	9.7	11.3	12.0	1.48	3.5	6.0	0.36	1.82	25.0	112	1.69	0.149	0.141	8.1	0.30	2991	3513	237	64	C	F	0.0367	128.9	2.19
55	64	3244	10.2	9.7	10.4	12.0	12.7	1.56	3.7	6.5	0.35	2.03	26.7	110	1.76	0.146	0.138	8.3	0.32	3102	3513	241	66	C	F	0.0450	146.1	2.29
60	69	2996	10.9	10.4	10.9	12.6	13.4	1.64	3.8	7.0	0.34	2.24	28.1	109	1.83	0.145	0.137	8.5	0.34	3188	3513	243	67	C	F	0.0541	162.1	2.36
65	74	2769	11.6	11.1	11.5	13.2	14.0	1.72	3.9	7.4	0.34	2.45	29.3	108	1.90	0.144	0.136	8.6	0.35	3253	3513	244	68	C	F	0.0638	176.7	2.39
70	79	2563	12.3	11.7	12.0	13.7	14.5	1.79	4.0	7.8	0.33	2.67	30.2	106	1.98	0.144	0.136	8.6	0.36	3301	3513	243	68	C	F	0.0742	190.1	2.41
75	84	2375	12.9	12.3	12.5	14.2	15.0	1.86	4.2	8.2	0.33	2.89	31.0	105	2.05	0.144	0.136	8.6	0.37	3334	3513	241	69	C	F	0.0851	202.0	2.41
80	89	2206	13.5	12.9	12.9	14.7	15.5	1.93	4.3	8.6	0.33	3.11	31.6	104	2.13	0.145	0.137	8.6	0.38	3356	3513	238	69	C	F	0.0964	212.7	2.40
85	94	2053	14.1	13.5	13.4	15.1	16.0	2.00	4.4	8.9	0.33	3.33	32.1	103	2.21	0.146	0.138	8.5	0.39	3368	3513	235	68	C	F	0.1082	222.2	2.37
90	99	1915	14.7	14.1	13.7	15.5	16.4	2.07	4.5	9.2	0.33	3.55	32.5	101	2.29	0.147	0.140	8.5	0.39	3372	3513	232	68	C	F	0.1204	230.6	2.33
95	104	1791	15.3	14.6	14.1	15.9	16.8	2.13	4.6	9.4	0.32	3.78	32.8	100	2.36	0.149	0.141	8.4	0.39	3370	3513	228	68	C	F	0.1329	238.0	2.29
100	109	1678	15.8	15.2	14.5	16.2	17.1	2.20	4.8	9.7	0.32	4.00	33.0	99	2.44	0.150	0.143	8.3	0.40	3364	3513	224	67	C	F	0.1457	244.5	2.25
105	114	1576	16.4	15.7	14.8	16.6	17.4	2.26	4.9	9.9	0.32	4.23	33.1	98	2.52	0.152	0.144	8.2	0.40	3353	3513	220	67	C	F	0.1587	250.1	2.20
110	119	1483	16.9	16.2	15.1	16.9	17.8	2.32	5.0	10.1	0.33	4.45	33.2	97	2.60	0.154	0.146	8.1	0.40	3341	3513	217	66	C	F	0.1719	254.9	2.15
115	124	1399	17.4	16.7	15.4	17.2	18.1	2.38	5.1	10.3	0.33	4.68	33.3	96	2.67	0.156	0.148	8.0	0.40	3326	3513	213	65	C	F	0.1852	259.1	2.09
120	129	1323	17.9	17.2	15.7	17.5	18.3	2.43	5.2	10.5	0.33	4.90	33.3	95	2.75	0.158	0.150	7.9	0.40	3310	3513	209	65	C	F	0.1986	262.8	2.04
125	134	1254	18.4	17.7	16.0	17.7	18.6	2.49	5.3	10.6	0.33	5.12	33.3	93	2.82	0.159	0.152	7.8	0.40	3293	3513	206	64	C	F	0.2121	266.0	1.99
130	139	1190	18.9	18.1	16.2	18.0	18.8	2.54	5.4	10.7	0.33	5.34	33.2	92	2.90	0.161	0.154	7.7	0.40	3275	3513	202	64	C	F	0.2256	268.5	1.93
135	144	1132	19.3	18.6	16.4	18.2	19.1	2.59	5.5	10.9	0.33	5.56	33.2	91	2.97	0.163	0.156	7.5	0.40	3257	3513	198	63	C	F	0.2391	270.7	1.88
140	149	1079	19.8	19.0	16.7	18.4	19.3	2.64	5.6	11.0	0.33	5.78	33.1	90	3.04	0.165	0.158	7.4	0.39	3240	3513	195	62	C	F	0.2525	272.5	1.83
145	154	1031	20.2	19.5	16.9	18.6	19.5	2.69	5.6	11.1	0.33	6.00	33.1	89	3.11	0.167	0.160	7.4	0.39	3222	3513	192	62	C	F	0.2660	274.2	1.78
150	159	986	20.6	19.9	17.1	18.8	19.7	2.74	5.7	11.2	0.33	6.21	33.0	88	3.18	0.169	0.162	7.3	0.39	3205	3513	189	61	C	F	0.2793	275.4	1.73
155	164	945	21.1	20.3	17.3	19.0	19.9	2.79	5.8	11.3	0.34	6.42	32.9	88	3.25	0.171	0.164	7.2	0.39	3189	3513	186	61	C	F	0.2925	276.4	1.69
160	169	907	21.5	20.7	17.5	19.2	20.1	2.83	5.9	11.3	0.34	6.63	32.8	87	3.32	0.173	0.165	7.1	0.39	3173	3513	184	60	C	F	0.3056	277.2	1.64
165	174	872	21.9	21.1	17.6	19.3	20.2	2.88	6.0	11.4	0.34	6.84	32.7	86	3.39	0.175	0.167	7.0	0.39	3159	3513	181	60	C	F	0.3186	277.8	1.60
170	179	839	22.3	21.5	17.8	19.5	20.4	2.92	6.0	11.5	0.34	7.05	32.6	85	3.45	0.177	0.169	6.9	0.38	3144	3513	178	59	C	F	0.3313	278.0	1.55
175	184	809	22.6	21.8	18.0	19.7	20.6	2.96	6.1	11.5	0.34	7.25	32.5	84	3.52	0.179	0.171	6.8	0.38	3131	3513	176	59	C	F	0.3440	278.3	1.51
180	189	781	23.0	22.2	18.1	19.8	20.7	3.00	6.2	11.5	0.34	7.46	32.5	83	3.58	0.181	0.173	6.8	0.38	3119	3513	174	58	C	F	0.3565	278.4	1.47

Bh age	Total age	Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 12 m Initial Density = 5000 stems/ha													
5	14	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	19	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	24	2	8.3	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	29	124	8.4	1.6	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	34	601	8.6	9.4	0.28	2	12.2	0.1	0.00	0	0.0	0.0	0.00
30	39	1213	8.9	23.7	0.61	18	12.8	0.9	0.02	0	0.0	0.0	0.00
35	44	1713	9.3	41.8	0.95	83	13.0	4.7	0.11	10	14.6	0.6	0.01
40	49	2038	9.7	61.6	1.26	215	13.2	13.7	0.28	44	14.8	3.1	0.06
45	54	2213	10.2	81.7	1.52	397	13.5	28.1	0.52	117	15.0	9.2	0.17
50	59	2277	10.7	101.1	1.72	596	13.8	46.5	0.79	226	15.2	19.4	0.33
55	64	2269	11.2	119.6	1.87	783	14.1	67.2	1.05	358	15.5	33.6	0.53
60	69	2215	11.7	136.7	1.99	939	14.4	88.2	1.28	495	15.7	50.5	0.73
65	74	2134	12.3	152.4	2.06	1059	14.7	108.7	1.47	624	16.0	69.0	0.93
70	79	2040	12.8	166.6	2.11	1143	15.1	127.7	1.62	734	16.3	87.8	1.11
75	84	1939	13.3	179.5	2.14	1195	15.5	145.0	1.73	822	16.6	106.1	1.27
80	89	1836	13.9	190.9	2.15	1222	15.8	160.5	1.81	888	16.9	123.3	1.39
85	94	1737	14.4	201.1	2.14	1229	16.2	174.2	1.86	935	17.3	139.3	1.48
90	99	1642	14.9	210.2	2.13	1221	16.6	186.2	1.88	964	17.6	153.7	1.56
95	104	1552	15.4	218.2	2.10	1202	17.0	196.8	1.90	979	17.9	166.6	1.60
100	109	1469	15.9	225.3	2.07	1177	17.4	206.0	1.89	983	18.3	178.2	1.64
105	114	1390	16.4	231.3	2.03	1145	17.8	213.9	1.88	977	18.6	188.2	1.65
110	119	1318	16.9	236.8	1.99	1112	18.2	220.9	1.86	966	19.0	197.2	1.66
115	124	1250	17.4	241.3	1.95	1076	18.6	226.7	1.83	950	19.3	204.9	1.65
120	129	1189	17.9	245.6	1.91	1041	19.0	232.0	1.80	931	19.7	211.9	1.65
125	134	1132	18.3	249.1	1.86	1006	19.3	236.5	1.77	910	20.0	217.9	1.63
130	139	1079	18.8	252.1	1.82	971	19.7	240.3	1.73	887	20.4	223.1	1.61
135	144	1031	19.2	254.8	1.77	937	20.1	243.5	1.69	864	20.7	227.6	1.58
140	149	986	19.6	257.0	1.73	905	20.5	246.3	1.66	840	21.1	231.5	1.56
145	154	945	20.0	258.9	1.68	874	20.8	248.7	1.62	817	21.4	234.9	1.53
150	159	906	20.5	260.4	1.64	844	21.2	250.7	1.58	794	21.7	237.8	1.50
155	164	871	20.8	261.6	1.60	816	21.6	252.3	1.54	771	22.1	240.2	1.47
160	169	839	21.2	263.0	1.56	790	21.9	253.9	1.50	750	22.4	242.5	1.44
165	174	807	21.6	263.6	1.52	765	22.3	254.9	1.47	729	22.7	244.2	1.41
170	179	779	22.0	264.3	1.48	741	22.6	255.8	1.43	709	23.0	245.8	1.37
175	184	754	22.4	265.2	1.44	720	22.9	256.9	1.40	691	23.4	247.4	1.35
180	189	729	22.7	265.6	1.41	699	23.3	257.5	1.36	672	23.7	248.5	1.32
SI = 12 m Initial Density = 6000 stems/ha													
5	14	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	19	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	24	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	29	91	8.3	1.1	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	34	549	8.5	8.2	0.24	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	39	1218	8.7	22.5	0.58	11	12.7	0.5	0.01	0	0.0	0.0	0.00
35	44	1804	9.1	41.4	0.95	60	12.9	3.4	0.08	6	14.5	0.4	0.01
40	49	2204	9.5	62.4	1.28	176	13.1	11.0	0.23	30	14.7	2.1	0.04
45	54	2427	10.0	83.6	1.55	353	13.4	24.4	0.45	90	14.9	6.9	0.13
50	59	2518	10.4	104.3	1.77	561	13.6	42.5	0.72	189	15.1	15.9	0.27
55	64	2519	10.9	123.7	1.94	765	13.9	63.6	1.00	320	15.3	29.2	0.46
60	69	2463	11.5	141.7	2.06	943	14.2	85.6	1.24	463	15.6	45.8	0.67
65	74	2374	12.0	158.1	2.14	1084	14.5	107.2	1.45	602	15.8	64.4	0.87
70	79	2266	12.5	173.0	2.20	1187	14.9	127.5	1.62	726	16.1	83.9	1.06
75	84	2150	13.0	186.1	2.22	1254	15.2	146.0	1.74	828	16.4	103.0	1.23
80	89	2033	13.5	198.0	2.23	1291	15.6	162.5	1.83	907	16.7	121.2	1.36
85	94	1919	14.1	208.4	2.22	1306	16.0	177.2	1.89	964	17.0	138.1	1.47
90	99	1810	14.6	217.6	2.20	1302	16.3	190.0	1.92	1002	17.3	153.4	1.55
95	104	1708	15.1	225.8	2.18	1286	16.7	201.2	1.94	1024	17.7	167.3	1.61
100	109	1612	15.6	232.8	2.14	1260	17.1	210.9	1.94	1033	18.0	179.6	1.65
105	114	1523	16.0	239.0	2.10	1229	17.5	219.3	1.93	1031	18.3	190.4	1.67
110	119	1440	16.5	244.3	2.06	1193	17.9	226.4	1.91	1021	18.7	199.8	1.68
115	124	1364	17.0	248.9	2.01	1155	18.2	232.5	1.88	1006	19.0	208.1	1.68
120	129	1294	17.5	253.0	1.96	1117	18.6	237.9	1.85	987	19.4	215.4	1.67
125	134	1230	17.9	256.5	1.92	1079	19.0	242.6	1.81	966	19.7	221.8	1.66
130	139	1170	18.4	259.3	1.87	1040	19.4	246.3	1.77	942	20.0	227.1	1.64
135	144	1115	18.8	261.8	1.82	1003	19.7	249.5	1.73	917	20.4	231.8	1.61
140	149	1065	19.2	263.9	1.77	968	20.1	252.3	1.70	892	20.7	235.8	1.58
145	154	1019	19.6	265.8	1.73	935	20.5	254.8	1.66	868	21.1	239.5	1.56
150	159	976	20.0	267.2	1.68	902	20.8	256.7	1.62	843	21.4	242.4	1.53
155	164	936	20.4	268.4	1.64	872	21.2	258.4	1.58	819	21.7	245.0	1.50
160	169	899	20.8	269.3	1.60	842	21.5	259.7	1.54	796	22.0	247.2	1.46
165	174	865	21.2	270.1	1.55	815	21.9	260.8	1.50	773	22.4	249.0	1.43
170	179	833	21.6	270.5	1.51	788	22.2	261.5	1.46	751	22.7	250.4	1.40
175	184	804	21.9	270.9	1.47	764	22.6	262.2	1.43	730	23.0	251.7	1.37
180	189	777	22.3	271.1	1.44	741	22.9	262.6	1.39	710	23.3	252.7	1.34

Table A41. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 12 m Initial Density = 7000 stems/ha																																								
5	14	6929	1.2	1.1	2.0	2.4	2.5	0.69	1.4	0.4	0.76	0.37	0.8	199	1.20	0.497	0.478	0.7	0.01	902	3950	48	26	A	F	0.0001	0.8	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	19	6761	2.4	2.2	3.0	3.6	3.8	0.76	1.8	0.9	0.66	0.46	3.0	142	1.22	0.335	0.320	2.0	0.03	1202	3950	86	31	B	F	0.0007	4.5	0.24	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	24	6507	3.4	3.2	4.0	4.8	5.1	0.85	2.2	1.5	0.57	0.58	6.0	130	1.24	0.257	0.245	3.2	0.07	1530	3950	123	38	B	F	0.0019	12.4	0.52	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	29	6188	4.4	4.1	4.9	6.0	6.3	0.94	2.4	2.2	0.51	0.71	9.4	124	1.27	0.213	0.202	4.5	0.11	1860	3950	157	44	B	F	0.0039	24.3	0.84	67	8.3	0.8	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	34	5825	5.3	5.0	5.8	7.0	7.4	1.03	2.6	2.9	0.46	0.86	12.8	122	1.31	0.187	0.176	5.6	0.15	2172	3950	185	50	C	F	0.0068	39.7	1.17	494	8.4	7.1	0.21	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	39	5439	6.1	5.8	6.7	8.0	8.5	1.12	2.8	3.6	0.43	1.02	16.1	120	1.36	0.169	0.160	6.5	0.19	2453	3950	209	56	C	F	0.0106	57.5	1.48	1200	8.6	21.2	0.55	6	12.7	0.3	0.01	0	0.0	0.0	0.00
35	44	5046	7.0	6.6	7.5	8.9	9.5	1.20	3.0	4.3	0.40	1.19	19.2	118	1.41	0.157	0.148	7.3	0.23	2697	3950	227	60	C	F	0.0152	76.7	1.75	1863	9.0	40.6	0.93	43	12.9	2.4	0.05	4	14.3	0.2	0.00
40	49	4662	7.7	7.3	8.2	9.8	10.4	1.29	3.1	4.9	0.38	1.37	22.0	116	1.46	0.150	0.141	7.9	0.26	2903	3950	241	64	C	F	0.0207	96.4	1.98	2335	9.4	62.5	1.28	143	13.0	8.8	0.18	20	14.7	1.4	0.03
45	54	4294	8.5	8.0	9.0	10.6	11.2	1.37	3.3	5.5	0.37	1.55	24.3	115	1.53	0.144	0.136	8.4	0.29	3072	3950	250	67	C	F	0.0270	115.9	2.15	2609	9.8	84.8	1.58	311	13.3	21.0	0.39	69	14.8	5.2	0.10
50	59	3950	9.2	8.8	9.6	11.3	12.0	1.45	3.4	6.0	0.35	1.74	26.4	113	1.59	0.141	0.133	8.7	0.32	3208	3950	256	69	C	F	0.0341	134.6	2.29	2730	10.2	106.5	1.81	521	13.5	38.6	0.66	158	15.0	13.0	0.22
55	64	3631	9.9	9.4	10.2	12.0	12.7	1.53	3.5	6.5	0.35	1.94	28.1	112	1.66	0.139	0.131	8.9	0.34	3313	3950	260	70	D	F	0.0419	152.3	2.39	2743	10.7	126.9	1.99	738	13.8	59.8	0.94	283	15.2	25.2	0.39
60	69	3340	10.6	10.1	10.8	12.6	13.4	1.61	3.7	7.0	0.34	2.14	29.6	110	1.73	0.137	0.130	9.1	0.36	3393	3950	261	72	D	F	0.0505	168.6	2.45	2688	11.2	145.7	2.12	934	14.1	82.4	1.20	428	15.5	41.3	0.60
65	74	3075	11.3	10.7	11.4	13.2	14.0	1.68	3.8	7.4	0.33	2.35	30.7	109	1.80	0.137	0.129	9.2	0.37	3451	3950	261	72	D	F	0.0597	183.6	2.49	2592	11.7	162.7	2.20	1095	14.4	105.0	1.42	574	15.7	59.8	0.81
70	79	2836	11.9	11.4	11.9	13.7	14.5	1.76	3.9	7.8	0.33	2.56	31.7	108	1.88	0.137	0.129	9.2	0.38	3492	3950	259	73	D	F	0.0695	197.1	2.50	2474	12.2	178.0	2.26	1215	14.7	126.3	1.60	709	16.0	79.6	1.01
75	84	2620	12.6	12.0	12.3	14.2	15.0	1.83	4.0	8.2	0.33	2.77	32.4	106	1.95	0.138	0.130	9.2	0.39	3517	3950	256	73	D	F	0.0798	209.2	2.50	2346	12.7	191.7	2.29	1297	15.0	145.9	1.74	824	16.2	99.4	1.19
80	89	2426	13.2	12.6	12.8	14.6	15.5	1.90	4.2	8.5	0.32	2.98	33.0	105	2.03	0.139	0.131	9.1	0.40	3531	3950	253	72	D	F	0.0907	220.0	2.48	2216	13.2	203.8	2.29	1347	15.4	163.5	1.84	915	16.5	118.4	1.33
85	94	2251	13.8	13.2	13.2	15.1	16.0	1.96	4.3	8.8	0.32	3.20	33.5	104	2.11	0.140	0.132	9.0	0.41	3536	3950	249	72	D	F	0.1020	229.5	2.45	2089	13.7	214.5	2.29	1369	15.7	179.0	1.91	983	16.8	136.1	1.45
90	99	2094	14.3	13.7	13.6	15.5	16.4	2.03	4.4	9.1	0.32	3.42	33.8	103	2.19	0.141	0.134	8.9	0.41	3533	3950	245	72	D	F	0.1137	238.0	2.41	1967	14.3	223.8	2.27	1371	16.1	192.6	1.95	1030	17.1	152.4	1.54
95	104	1953	14.9	14.3	14.0	15.8	16.8	2.09	4.5	9.4	0.32	3.64	34.1	101	2.26	0.143	0.135	8.8	0.41	3524	3950	241	71	D	F	0.1257	245.4	2.36	1853	14.7	232.1	2.24	1358	16.5	204.4	1.97	1059	17.5	167.0	1.61
100	109	1825	15.5	14.8	14.3	16.2	17.1	2.16	4.6	9.6	0.32	3.86	34.2	100	2.34	0.145	0.137	8.7	0.41	3511	3950	236	70	D	F	0.1379	251.7	2.31	1746	15.2	239.2	2.20	1333	16.8	214.5	1.97	1073	17.8	180.0	1.65
105	114	1710	16.0	15.3	14.6	16.5	17.4	2.22	4.7	9.8	0.32	4.07	34.4	99	2.42	0.146	0.139	8.6	0.41	3495	3950	232	70	C	F	0.1505	257.3	2.26	1646	15.7	245.3	2.16	1301	17.2	223.2	1.96	1075	18.1	191.4	1.68
110	119	1606	16.5	15.8	14.9	16.8	17.8	2.28	4.8	10.1	0.32	4.29	34.4	98	2.50	0.148	0.140	8.5	0.41	3476	3950	228	69	C	F	0.1631	262.0	2.21	1554	16.2	250.7	2.11	1265	17.6	230.8	1.94	1068	18.4	201.4	1.70
115	124	1512	17.0	16.3	15.2	17.1	18.1	2.33	4.9	10.2	0.32	4.51	34.4	97	2.57	0.150	0.142	8.3	0.41	3455	3950	223	68	C	F	0.1760	266.1	2.15	1470	16.6	255.3	2.06	1225	18.0	237.1	1.92	1055	18.8	210.2	1.70
120	129	1427	17.5	16.8	15.5	17.4	18.3	2.39	5.1	10.4	0.32	4.73	34.4	96	2.65	0.152	0.144	8.2	0.41	3434	3950	219	68	C	F	0.1890	269.7	2.09	1392	17.1	259.3	2.01	1185	18.3	242.7	1.88	1036	19.1	217.8	1.69
125	134	1350	18.0	17.3	15.8	17.7	18.6	2.44	5.2	10.6	0.32	4.95	34.4	94	2.72	0.154	0.146	8.1	0.41	3412	3950	215	67	C	F	0.2021	272.8	2.04	1321	17.6	262.7	1.96	1144	18.7	247.4	1.85	1015	19.4	224.6	1.68
130	139	1279	18.5	17.8	16.0	17.9	18.8	2.50	5.2	10.7	0.32	5.16	34.3	93	2.80	0.156	0.148	8.0	0.41	3389	3950	211	66	C	F	0.2152	275.2	1.98	1255	18.0	265.5	1.91	1104	19.1	251.3	1.81	991	19.8	230.2	1.66
135	144	1215	18.9	18.2	16.3	18.1	19.1	2.55	5.3	10.8	0.33	5.38	34.2	92	2.87	0.158	0.150	7.9	0.41	3367	3950	207	65	C	F	0.2283	277.4	1.93	1195	18.4	268.0	1.86	1065	19.4	254.7	1.77	965	20.1	235.1	1.63
140	149	1156	19.4	18.7	16.5	18.3	19.3	2.60	5.4	11.0	0.33	5.59	34.1	91	2.94	0.160	0.152	7.7	0.41	3345	3950	204	65	C	F	0.2413	279.0	1.87	1139	18.8	269.9	1.81	1026	19.8	257.4	1.73	939	20.4	239.3	1.61
145	154	1102	19.8	19.1	16.7	18.6	19.5	2.65	5.5	11.1	0.33	5.80	34.0	90	3.01	0.162	0.154	7.6	0.40	3323	3950	200	64	C	F	0.2544	280.4	1.82	1087	19.3	271.5	1.77	990	20.2	259.8	1.69	913	20.8	243.0	1.58
150	159	1053	20.2	19.5	16.9	18.7	19.7	2.70	5.6	11.2	0.33	6.01	33.9	89	3.08	0.164	0.156	7.5	0.40	3302	3950	197	63	C	F	0.2674	281.6	1.77	1041	19.7	273.0	1.72	955	20.5	261.8	1.65	887	21.1	246.1	1.55
155	164	1007	20.7	19.9	17.1	18.9	19.9	2.74	5.7	11.2	0.33	6.22	33.8	88	3.15	0.166	0.158	7.4	0.40	3282	3950	194	63	C	F	0.2803	282.3	1.72	996	20.1	273.9	1.67	922	20.9	263.2	1.61	861	21.4	248.6	1.52
160	169	965	21.1	20.3	17.3	19.1	20.1	2.79	5.8	11.3	0.33	6.43	33.7	87	3.22	0.168	0.160	7.3	0.40	3262	3950	190	62	C	F	0.2932	282.9	1.68	956	20.4	274.7	1.63	890	21.2	264.4	1.57	837	21.7	250.9	1.49
165	174	927	21.5	20.7	17.5	19.3	20.2	2.83	5.9	11.4	0.34	6.64	33.6	87	3.28	0.170	0.162	7.2	0.40	3244	3950	188	62	C	F	0.3058	283.5	1.63	919	20.8	275.5	1.59	861	21.5	265.6	1.53	813	22.0	252.9	1.46
170	179	891	21.9	21.1	17.6	19.4	20.4	2.88	5.9	11.4	0.34	6.84	33.4	86	3.35	0.172	0.164	7.2	0.39	3226	3950	185	61	C	F	0.3184	283.7	1.59	884	21.2	275.8	1.54	833	21.9	266.4	1.49	790	22.4	254.3	1.42
175	184	858	22.2	21.5	17.8	19.6	20.6	2.92	6.0	11.5	0.34	7.04	33.3	85	3.41	0.174	0.166	7.1	0.39	3210	3950	182	60	C	F	0.3308	283.8	1.54	852	21.6	276.1	1.50	806	22.2	266.9	1.45	768	22.7	255.7	1.39
180	189	828	22.6	21.8	17.9	19.7	20.7	2.96	6.1	11.5	0.34	7.24	33.2	84	3.48	0.176	0.168	7.0	0.39	3194	3950	180	60	C	F	0.3431	284.1	1.50	823	21.9	276.5	1.46	782	22.5	267.6	1.42	747	23.0	256.9	1.36
SI = 12 m Initial Density = 7500 stems/ha																																								
5	14	7422	1.2	1.1	2.0	2.4	2.5	0.69	1.4	0.4	0.76	0.37	0.8	202	1.16	0.481	0.462	0.7	0.01	961	4162	51	27	A	F	0.0001	0.8	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	19	7235	2.3	2.2	3.0	3.6	3.8	0.76	1.8	0.9	0.65	0.46	3.1	144	1.18	0.324	0.310	2.0	0.03	1272	4162	91	33	B	F	0.0006	4.6	0.24	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	24	6955	3.4	3.1	3.9	4.8	5.1	0.85	2.1	1.6	0.57	0.57	6.2	131	1.20	0.249	0.237	3.4	0.07	1611	4162	129	40	B	F	0.0018	12.7	0.53	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	29	6603	4.3	4.0	4.9	5.9	6.3	0.93	2.4	2.2	0.51	0.70	9.7	126	1.23	0.207	0.196	4.7	0.11	1950	4162	164	46	B	F	0.0038	24.9	0.86	58	8.2	0.7	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	34	6204	5.2	4.9	5.8	7.0	7.4	1.02	2.6	2.9	0.46	0.85	13.2	123	1.27	0.181	0.171	5.8	0.15	2269	4162	194	52	C	F	0.0065	40.6	1.20	467	8.3	6.6	0.20	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	39	5780	6.1	5.7	6.6	8.0	8.5	1.11	2.8	3.6	0.42	1.00	16.6	120	1.32	0.164	0.155	6.8	0.20	2554	4162	218	58	C	F	0.0102	58.8	1.52	1185	8.6	20.5	0.53	5	12.6	0.2	0.01	0	0.0	0.0	0.00
35	44	5351	6.9	6.5	7.5	8.9	9.5	1.19	2.9	4.3	0.40	1.17	19.8	119	1.37	0.153	0.144	7.5	0.23	2801	4162	236	62	C	F	0.0147	78.4	1.79	1882	8.9	40.1	0.92	37	12.8	2.0	0.05	3	14.3	0.2	0.00
40	49	4933	7.6	7.2	8.2	9.8	10.4	1.28	3.1	4.9	0.38	1.34	22.6	117	1.42	0.146	0.137	8.2	0.27	3008	4162	250	66	C	F	0.0199	98.4	2.02	2390	9.3	62.4	1.28	129	13.0	7.9	0.16	17	14.6	1.2	0.02
45	54	4535	8.4	7.9	8.9	10.6	11.2	1.36	3.2	5.5	0.36	1.52	25.0	115	1.48	0.141	0.132	8.6	0.30	3176	4162	259	69	C	F	0.0261	118.2	2.20	2690	9.7	85.2	1.58	291	13.2	19.5	0.36	60	14.8	4.5	0.08
50	59	4162	9.1	8.6	9.6	11.3	12.0	1.44	3.3	6.0	0.35	1.71	27.1	114	1.55	0.137	0.129	9.0	0.33	3309	4162	265	71	D	F	0.0330	137.2	2.33	2826	10.2	107.4	1.83	500	13.5	36.7	0.62	144	15.0	11.7	0.20
55	64	3820	9.8	9.3	10.2	12.0	12.7	1.52	3.5	6.5	0.34	1.90	28.8	112	1.62	0.135	0.127	9.2	0.35	3412	4162	269	73	D	F	0.0406	155.1	2.43	2847	10.6	128.2	2.01	722	13.7	57.8	0.91	266	15.2	23.5	0.37
60	69	3507	10.5	10.0	10.8	12.6	13.4	1.59	3.6	7.0	0.33	2.10	30.2	111	1.69	0.134	0.126	9.3	0.37	3489	4162	270	74	D	F	0.0489	171.6	2.49	2793	11.1	147.3	2.14	926	14.0	80.7	1.17	410	15.4	39.2	0.57
65	74	3224	11.1	10.6	11.3	13.1	14.0	1.67	3.7	7.4	0.33	2.30	31.4	110	1.76	0.134	0.126	9.4	0.38	3543	4162	269	74	D	F	0.0579	186.6	2.53	2695	11.6	164.7	2.23	1096	14.3	103.7	1.41	559	15.6	57.6	0.78
70	79	2968	11.8	11.2	11.8	13.7	14.5	1.74	3.8	7.8	0.33	2.51	32.4	108	1.84	0.134	0.126	9.4	0.39	3580	4162	267	75	D	F	0.0675	200.2	2.54	2572	12.1	180.2	2.29	1225	14.6	125.5	1.59	699	15.9	77.4	0.98
75	84	2738	12.4	11.8	12.3	14.2	15.0	1.81	4.0	8.1	0.32	2.72	33.1	107	1.91	0.135	0.127	9.4	0.40	3603	4162	264	74	D	F	0.0776	212.4	2.53	2439	12.6	194.1	2.32	1314	15.0	145.6	1.74	819	16.2	97.5	1.16
80	89	2532	13.0	12.4	12.7	14.6	15.5	1.88	4.1	8.5	0.32	2.93	33.7	106	1.99	0.136	0.128	9.3	0.41	3613	4162	260	74	D	F	0.0882	223.3	2.51	2303	13.1	206.3	2.32	1369	15.3	163.6	1.84	916	16.5	116.8	1.32
85	94	2346	13.6	13.0	13.1	15.1	16.0	1.95	4.2	8.8	0.32	3.14	34.1	104	2.06	0.137	0.129	9.2	0.41	3614	4162	256	74	D	F	0.0992	232.8	2.48	2169	13.6	217.1	2.31	1396	15.6	179.5	1.91	989	16.7	134.9	1.44
90	99	2180	14.2	13.6	13.5	15.5	16.4	2.01	4.3	9.1	0.32	3.36	34.4	103	2.14	0.139	0.131	9.1	0.42	3608	4162	251	73	D	F	0.1106	241.2	2.44	2042	14.1	226.5	2.29	1401	16.0	193.5	1.96	1040	17.1	151.5	1.53
95	104	2031	14.7	14.1	13.9	15.8	16.8	2.08	4.5	9.4	0.32	3.57	34.7	102	2.22	0.140	0.132	9.0	0.42	3596	4162	247	73	D	F	0.1224	248.6	2.39	1922	14.6	234.9	2.26	1390	16.4	205.6	1.98	1073	17.4	166.6	1.60
100	109	1896	15.3	14.7	14.2	16.2	17.1	2.14	4.6	9.6	0.32	3.79	34.8	101	2.30	0.142	0.134	8.9	0.42	3580	4162	242	72	D	F	0.1345	255.0	2.34	1810	15.1	242.0	2.22	1366	16.7	216.0	1.99	1090	17.7	179.9	1.65
105	114	1775	15.8	15.2	14.5	16.5	17.4	2.20	4.7	9.8	0.32	4.01	34.9	99	2.37	0.144	0.136	8.8	0.42	3560	4162	237	71	D	F	0.1468	260.5	2.29	1706	15.6	248.2	2.18	1335	17.1	225.0	1.98	1094	18.0	191.6	1.68
110	119	1666	16.3	15.7	14.9	16.8	17.8	2.26	4.8	10.0	0.32	4.22	35.0	98	2.45	0.146	0.138	8.6	0.42	3539	4162	233	70	D	F	0.1593	265.4	2.23	1610	16.0	253.6	2.13	1298	17.5	232.7	1.96	1089	18.3	202.0	1.70
115	124	1567	16.9	16.2	15.1	17.1	18.1	2.31	4.9	10.2	0.32	4.44	35.0	97	2.53	0.148	0.140	8.5	0.42	3515	4162	228	70	C	F	0.1719	269.4	2.18	1521	16.5	258.2	2.09	1258	17.8	239.2	1.93	1077	18.7	211.0	1.70
120	129	1477	17.3	16.7	15.4	17.4	18.3	2.37	5.0	10.4	0.32	4.65	34.9	96	2.60	0.150	0.142	8.4	0.42	3491	4162	224	69	C	F	0.1847	272.8	2.12	1439	17.0	262.1	2.03	1217	18.2	244.7	1.90	1058	19.0	218.7	1.70
125	134	1396	17.8	17.1	15.7	17.6	18.6	2.42	5.1	10.6	0.32	4.87	34.9	95	2.68	0.152	0.144	8.3	0.42	3467	4162	219	68	C	F	0.1976	275.8	2.06	1365	17.4	265.5	1.98	1175	18.6	249.5	1.86	1037	19.3	225.6	1.69
130	139	1322	18.3	17.6	15.9	17.9	18.8	2.48	5.2	10.7	0.32	5.08	34.8	94	2.75	0.154	0.146	8.1	0.42	3442	4162	215	67	C	F	0.2104	278.2	2.00	1296	17.8	268.3	1.93	1134	18.9	253.5	1.83	1013	19.6	231.4	1.67
135	144	1254	18.8	18.0	16.2	18.1	19.1	2.53	5.3	10.8	0.32	5.30	34.7	93	2.82	0.156	0.148	8.0	0.41	3417	4162	211	66	C	F	0.2234	280.1	1.95	1232	18.3	270.5	1.88	1093	19.3	256.8	1.79	987	20.0	236.4	1.64
140	149	1193	19.2	18.5	16.4	18.3	19.3	2.58	5.4	10.9	0.33	5.51	34.6	92	2.90	0.158	0.150	7.9	0.41	3393	4162	208	66	C	F	0.2363	281.9	1.89	1174	18.7	272.6	1.83	1054	19.7	259.7	1.75	961	20.3	240.8	1.62
145	154	1137	19.6	18.9	16.6	18.5	19.5	2.63	5.5	11.0	0.33	5.72	34.5	91	2.97	0.160	0.152	7.8	0.41	3370	4162	204	65	C	F	0.2493	283.4	1.84	1121	19.1	274.3	1.78	1017	20.0	262.1	1.70	935	20.6	244.6	1.59
150	159	1085	20.1	19.3	16.8	18.7	19.7	2.68	5.6	11.1	0.33	5.93	34.3	90	3.04	0.162	0.154	7.7	0.41	3347	4162	200	64	C	F	0.2620	284.3	1.79	1072	19.5	275.5	1.73	980	20.4	264.0	1.66	908	20.9	247.7	1.56
155	164	1037	20.5	19.7	17.0	18.9	19.9	2.72	5.6	11.2	0.33	6.13	34.2	89	3.11	0.164	0.156	7.6	0.41	3325	4162	197	64	C	F	0.2748	285.0	1.74	1025	19.9	276.4	1.69	946	20.7	265.4	1.62	882	21.3	250.3	1.53
160	169	994	20.9	20.1	17.2	19.1	20.1	2.77	5.7	11.3	0.33	6.34	34.1	88	3.17	0.166	0.158	7.5	0.40	3304	4162	194	63	C	F	0.2875	285.8	1.69	984	20.3	277.4	1.64	914	21.0	266.9	1.58	857	21.6	252.7	1.50
165	174	953	21.3	20.5	17.4	19.3	20.2	2.81	5.8	11.4	0.33	6.54	33.9	87	3.24	0.168	0.160	7.4	0.40	3284	4162	191	62	C	F	0.3001	286.0	1.65	944	20.7	277.8	1.60	882	21.4	267.6	1.54	831	21.9	254.3	1.46
170	179	916	21.7	20.9	17.5	19.4	20.4	2.86	5.9	11.4	0.34	6.75	33.8	86	3.30	0.170	0.162	7.3	0.40	3265	4162	188	62	C	F	0.3124	286.2	1.60	908	21.0	278.2	1.56	853	21.7	268.4	1.50	808	22.2	256.0	1.43
175	184	882	22.1	21.3	17.7	19.6	20.6	2.90	5.9	11.5	0.34	6.95	33.7	85	3.37	0.172	0.164	7.2	0.40	3247	4162	185	61	C	F	0.3248	286.5	1.56	875	21.4	278.6	1.52	826	22.1	269.1	1.46	785	22.5	257.4	1.40
180	189	850	22.4	21.6	17.8	19.7	20.7	2.94	6.0	11.5	0.34	7.14	33.6	84	3.43	0.174	0.166	7.1	0.39	3230	4162	183	61	C	F	0.3369	286.4	1.52	844	21.7	278.7	1.48	800	22.4	269.5	1.43	764	22.8	258.5	1.37

Table A42. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 12 m Initial Density = 8000 stems/ha																																								
5	14	7914	1.1	1.1	2.0	2.4	2.5	0.68	1.4	0.4	0.75	0.37	0.8	206	1.12	0.466	0.447	0.8	0.01	1019	4372	54	29	A	F	0.0001	0.8	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	19	7709	2.3	2.1	3.0	3.6	3.8	0.76	1.8	0.9	0.65	0.45	3.2	146	1.14	0.315	0.300	2.1	0.04	1341	4372	95	35	B	F	0.0006	4.7	0.25	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	24	7402	3.3	3.1	3.9	4.8	5.1	0.84	2.1	1.6	0.56	0.56	6.4	132	1.16	0.242	0.229	3.5	0.07	1690	4372	135	42	B	F	0.0018	13.0	0.55	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	29	7016	4.3	4.0	4.9	5.9	6.3	0.93	2.4	2.2	0.50	0.69	10.0	127	1.19	0.201	0.190	4.8	0.11	2038	4372	171	48	B	F	0.0036	25.5	0.89	49	8.2	0.6	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	34	6580	5.1	4.8	5.8	7.0	7.4	1.01	2.6	2.9	0.46	0.83	13.6	124	1.23	0.176	0.166	6.0	0.16	2363	4372	201	55	C	F	0.0063	41.5	1.23	440	8.3	6.1	0.18	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	39	6119	6.0	5.6	6.6	8.0	8.5	1.10	2.7	3.6	0.42	0.98	17.1	121	1.28	0.160	0.150	7.0	0.20	2653	4372	226	60	C	F	0.0098	60.0	1.55	1167	8.5	19.8	0.51	4	12.6	0.2	0.01	0	0.0	0.0	0.00
35	44	5654	6.8	6.4	7.4	8.9	9.5	1.18	2.9	4.3	0.39	1.15	20.3	119	1.33	0.149	0.140	7.8	0.24	2902	4372	245	65	C	F	0.0141	79.9	1.82	1897	8.9	39.6	0.90	31	12.8	1.7	0.04	2	14.2	0.1	0.00
40	49	5201	7.5	7.1	8.2	9.8	10.4	1.27	3.0	4.9	0.37	1.32	23.1	118	1.39	0.142	0.133	8.4	0.28	3109	4372	259	68	C	F	0.0193	100.3	2.06	2438	9.2	62.2	1.27	116	13.0	7.0	0.14	14	14.6	1.0	0.02
45	54	4772	8.3	7.8	8.9	10.6	11.2	1.35	3.1	5.4	0.36	1.49	25.6	116	1.45	0.137	0.129	8.9	0.31	3276	4372	268	71	D	F	0.0252	120.4	2.24	2765	9.6	85.5	1.59	272	13.2	18.1	0.34	53	14.8	3.9	0.07
50	59	4372	9.0	8.5	9.5	11.3	12.0	1.43	3.3	6.0	0.35	1.68	27.7	115	1.51	0.134	0.126	9.2	0.34	3407	4372	274	73	D	F	0.0319	139.6	2.37	2917	10.1	108.1	1.84	480	13.4	34.9	0.59	131	14.9	10.6	0.18
55	64	4005	9.7	9.2	10.1	11.9	12.7	1.50	3.4	6.5	0.34	1.87	29.4	113	1.58	0.132	0.124	9.5	0.36	3507	4372	277	75	D	F	0.0394	157.6	2.47	2946	10.5	129.3	2.03	705	13.7	55.9	0.88	249	15.1	21.8	0.34
60	69	3671	10.4	9.8	10.7	12.6	13.4	1.58	3.5	6.9	0.33	2.06	30.9	112	1.65	0.131	0.124	9.6	0.38	3581	4372	278	76	D	F	0.0475	174.3	2.53	2894	11.0	148.8	2.16	917	13.9	79.0	1.15	393	15.4	37.1	0.54
65	74	3369	11.0	10.5	11.2	13.1	14.0	1.65	3.7	7.4	0.33	2.26	32.1	110	1.72	0.131	0.123	9.7	0.39	3632	4372	277	76	D	F	0.0562	189.5	2.57	2794	11.5	166.4	2.25	1095	14.2	102.2	1.38	544	15.6	55.4	0.75
70	79	3098	11.6	11.1	11.7	13.7	14.5	1.72	3.8	7.8	0.32	2.47	33.0	109	1.80	0.132	0.124	9.7	0.40	3665	4372	274	76	D	F	0.0656	203.2	2.58	2668	12.0	182.2	2.31	1232	14.6	124.5	1.58	687	15.8	75.2	0.95
75	84	2854	12.3	11.7	12.2	14.1	15.0	1.79	3.9	8.1	0.32	2.67	33.7	107	1.87	0.132	0.125	9.6	0.41	3684	4372	271	76	D	F	0.0755	215.4	2.57	2529	12.5	196.2	2.34	1329	14.9	145.1	1.73	812	16.1	95.4	1.14
80	89	2636	12.9	12.3	12.6	14.6	15.5	1.86	4.0	8.5	0.32	2.88	34.3	106	1.95	0.133	0.126	9.6	0.42	3691	4372	267	76	D	F	0.0858	226.3	2.55	2388	13.0	208.7	2.35	1390	15.2	163.6	1.84	915	16.4	115.2	1.30
85	94	2440	13.5	12.9	13.1	15.0	16.0	1.93	4.2	8.8	0.32	3.09	34.7	105	2.02	0.135	0.127	9.5	0.42	3689	4372	262	75	D	F	0.0967	235.9	2.51	2248	13.5	219.5	2.34	1421	15.6	179.9	1.92	993	16.7	133.6	1.42
90	99	2264	14.0	13.4	13.4	15.4	16.4	1.99	4.3	9.1	0.32	3.30	35.0	104	2.10	0.136	0.128	9.3	0.43	3679	4372	257	75	D	F	0.1079	244.3	2.47	2114	14.0	229.0	2.32	1428	15.9	194.1	1.96	1049	17.0	150.6	1.52
95	104	2107	14.6	14.0	13.8	15.8	16.8	2.06	4.4	9.3	0.32	3.51	35.2	102	2.18	0.138	0.130	9.2	0.43	3664	4372	253	74	D	F	0.1194	251.6	2.42	1989	14.5	237.4	2.29	1419	16.3	206.6	1.99	1085	17.3	166.0	1.60
100	109	1966	15.1	14.5	14.1	16.1	17.1	2.12	4.5	9.6	0.32	3.73	35.4	101	2.26	0.140	0.132	9.1	0.43	3645	4372	248	73	D	F	0.1313	258.1	2.37	1872	14.9	244.6	2.25	1397	16.6	217.3	2.00	1105	17.6	179.7	1.65
105	114	1838	15.7	15.0	14.5	16.5	17.4	2.18	4.6	9.8	0.32	3.94	35.4	100	2.33	0.142	0.134	9.0	0.43	3623	4372	243	72	D	F	0.1434	263.5	2.32	1763	15.4	250.8	2.20	1366	17.0	226.4	1.99	1111	17.9	191.6	1.68
110	119	1724	16.2	15.5	14.8	16.8	17.8	2.24	4.7	10.0	0.32	4.16	35.5	99	2.41	0.144	0.136	8.8	0.43	3599	4372	238	72	D	F	0.1556	268.3	2.26	1663	15.9	256.3	2.16	1330	17.3	234.3	1.97	1108	18.2	202.3	1.70
115	124	1620	16.7	16.0	15.1	17.1	18.1	2.30	4.8	10.2	0.32	4.37	35.5	98	2.48	0.146	0.138	8.7	0.43	3573	4372	233	71	D	F	0.1681	272.3	2.20	1570	16.4	260.8	2.11	1289	17.7	240.9	1.95	1097	18.5	211.6	1.71
120	129	1526	17.2	16.5	15.3	17.3	18.3	2.35	4.9	10.4	0.32	4.58	35.4	96	2.56	0.148	0.140	8.5	0.43	3546	4372	228	70	C	F	0.1807	275.7	2.14	1485	16.8	264.7	2.06	1247	18.1	246.6	1.91	1079	18.9	219.5	1.70
125	134	1441	17.7	17.0	15.6	17.6	18.6	2.41	5.0	10.5	0.32	4.80	35.3	95	2.63	0.150	0.142	8.4	0.42	3519	4372	224	69	C	F	0.1933	278.6	2.08	1407	17.2	268.0	2.00	1205	18.4	251.4	1.88	1058	19.2	226.5	1.69
130	139	1364	18.1	17.4	15.9	17.8	18.8	2.46	5.1	10.7	0.32	5.01	35.2	94	2.71	0.152	0.144	8.3	0.42	3492	4372	219	68	C	F	0.2061	281.1	2.03	1336	17.7	270.9	1.95	1162	18.8	255.5	1.84	1034	19.5	232.5	1.67
135	144	1293	18.6	17.9	16.1	18.1	19.1	2.51	5.2	10.8	0.32	5.22	35.1	93	2.78	0.154	0.146	8.1	0.42	3466	4372	215	67	C	F	0.2189	283.0	1.97	1269	18.1	273.1	1.90	1120	19.2	258.8	1.80	1008	19.9	237.6	1.65
140	149	1229	19.0	18.3	16.3	18.3	19.3	2.56	5.3	10.9	0.32	5.43	35.0	92	2.85	0.156	0.148	8.0	0.42	3440	4372	211	67	C	F	0.2316	284.6	1.91	1209	18.5	275.1	1.85	1080	19.5	261.7	1.76	982	20.2	242.1	1.63
145	154	1170	19.5	18.7	16.5	18.5	19.5	2.61	5.4	11.0	0.33	5.64	34.8	91	2.92	0.158	0.150	7.9	0.42	3414	4372	207	66	C	F	0.2444	285.9	1.86	1153	18.9	276.6	1.80	1041	19.9	264.0	1.72	955	20.5	245.8	1.60
150	159	1116	19.9	19.2	16.7	18.7	19.7	2.66	5.5	11.1	0.33	5.84	34.7	90	2.99	0.160	0.152	7.8	0.41	3390	4372	204	65	C	F	0.2570	286.8	1.81	1101	19.3	277.8	1.75	1004	20.2	265.9	1.67	928	20.8	249.0	1.57
155	164	1067	20.3	19.6	16.9	18.9	19.9	2.70	5.6	11.2	0.33	6.05	34.6	89	3.06	0.162	0.154	7.7	0.41	3366	4372	200	65	C	F	0.2696	287.7	1.76	1055	19.7	279.0	1.70	969	20.6	267.6	1.63	901	21.1	251.8	1.54
160	169	1021	20.7	20.0	17.1	19.1	20.1	2.75	5.7	11.3	0.33	6.25	34.4	88	3.13	0.164	0.156	7.6	0.41	3343	4372	197	64	C	F	0.2822	288.1	1.71	1010	20.1	279.6	1.66	935	20.9	268.7	1.59	875	21.5	254.0	1.50
165	174	979	21.1	20.4	17.3	19.2	20.2	2.79	5.7	11.3	0.33	6.46	34.3	87	3.20	0.166	0.158	7.5	0.41	3322	4372	194	63	C	F	0.2946	288.4	1.66	970	20.5	280.1	1.61	904	21.2	269.7	1.55	850	21.8	255.9	1.47
170	179	941	21.5	20.7	17.4	19.4	20.4	2.84	5.8	11.4	0.33	6.66	34.2	86	3.26	0.168	0.160	7.4	0.40	3301	4372	191	63	C	F	0.3069	288.8	1.62	933	20.9	280.6	1.57	874	21.6	270.6	1.51	826	22.1	257.7	1.44
175	184	905	21.9	21.1	17.6	19.5	20.6	2.88	5.9	11.4	0.34	6.85	34.0	85	3.32	0.170	0.162	7.3	0.40	3282	4372	188	62	C	F	0.3191	288.8	1.57	898	21.2	280.8	1.53	846	21.9	271.1	1.47	802	22.4	258.9	1.41
180	189	872	22.3	21.5	17.8	19.7	20.7	2.92	6.0	11.5	0.34	7.05	33.9	85	3.39	0.172	0.164	7.2	0.40	3263	4372	185	61	C	F	0.3312	288.8	1.53	866	21.6	280.9	1.49	819	22.2	271.5	1.44	780	22.7	260.1	1.38
SI = 12 m Initial Density = 9000 stems/ha																																								
5	14	8898	1.1	1.0	2.0	2.4	2.5	0.68	1.4	0.4	0.75	0.37	0.8	212	1.06	0.440	0.422	0.8	0.01	1135	4782	59	33	B	F	0.0001	0.8	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	19	8656	2.2	2.1	2.9	3.6	3.8	0.75	1.7	0.9	0.64	0.45	3.4	149	1.07	0.297	0.283	2.3	0.04	1478	4782	103	39	B	F	0.0006	4.9	0.26	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	24	8292	3.2	3.0	3.9	4.8	5.1	0.83	2.1	1.6	0.56	0.55	6.7	134	1.10	0.229	0.217	3.8	0.08	1846	4782	146	46	B	F	0.0016	13.5	0.57	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	29	7837	4.1	3.9	4.8	5.9	6.3	0.92	2.3	2.2	0.49	0.67	10.5	129	1.13	0.190	0.180	5.2	0.12	2209	4782	184	53	C	F	0.0034	26.5	0.92	36	8.2	0.4	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	34	7326	5.0	4.7	5.7	7.0	7.4	1.00	2.5	2.9	0.45	0.81	14.3	125	1.17	0.167	0.157	6.4	0.17	2546	4782	217	59	C	F	0.0059	43.1	1.27	389	8.3	5.3	0.16	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	39	6788	5.8	5.5	6.5	8.0	8.5	1.08	2.6	3.6	0.41	0.95	17.9	123	1.21	0.152	0.143	7.5	0.21	2843	4782	242	65	C	F	0.0092	62.3	1.61	1124	8.5	18.5	0.48	3	12.4	0.1	0.00	0	0.0	0.0	0.00
35	44	6249	6.6	6.2	7.3	8.9	9.5	1.16	2.8	4.3	0.39	1.11	21.3	121	1.27	0.142	0.133	8.3	0.26	3094	4782	262	69	C	F	0.0133	82.8	1.89	1910	8.8	38.3	0.87	23	12.7	1.2	0.03	2	13.9	0.1	0.00
40	49	5728	7.3	6.9	8.1	9.7	10.4	1.25	2.9	4.9	0.37	1.27	24.2	119	1.32	0.136	0.127	8.9	0.29	3301	4782	276	73	D	F	0.0181	103.7	2.12	2517	9.1	61.6	1.26	94	12.9	5.6	0.11	10	14.5	0.7	0.01
45	54	5237	8.1	7.6	8.8	10.5	11.2	1.32	3.1	5.4	0.35	1.44	26.7	117	1.38	0.131	0.123	9.4	0.32	3466	4782	285	76	D	F	0.0237	124.3	2.31	2897	9.5	85.7	1.59	237	13.1	15.6	0.29	41	14.7	3.0	0.06
50	59	4782	8.8	8.3	9.4	11.2	12.0	1.40	3.2	5.9	0.34	1.62	28.9	116	1.45	0.129	0.121	9.7	0.35	3592	4782	290	78	D	F	0.0301	143.9	2.45	3083	9.9	109.1	1.86	440	13.3	31.5	0.54	109	14.9	8.7	0.15
55	64	4367	9.5	9.0	10.0	11.9	12.7	1.48	3.3	6.4	0.33	1.81	30.6	114	1.51	0.127	0.119	10.0	0.37	3687	4782	293	79	D	F	0.0372	162.3	2.54	3129	10.4	131.1	2.05	670	13.6	52.1	0.82	219	15.1	18.9	0.30
60	69	3991	10.1	9.6	10.6	12.5	13.4	1.55	3.4	6.9	0.33	2.00	32.1	113	1.58	0.126	0.118	10.1	0.39	3754	4782	293	80	D	F	0.0449	179.2	2.60	3083	10.8	151.3	2.20	893	13.8	75.3	1.09	359	15.3	33.3	0.48
65	74	3653	10.8	10.2	11.1	13.1	14.0	1.63	3.6	7.3	0.32	2.19	33.3	111	1.65	0.126	0.118	10.1	0.41	3799	4782	291	80	D	F	0.0533	194.6	2.64	2982	11.3	169.4	2.30	1086	14.1	99.2	1.34	512	15.5	51.1	0.69
70	79	3350	11.4	10.9	11.6	13.6	14.5	1.70	3.7	7.7	0.32	2.39	34.2	110	1.73	0.127	0.119	10.1	0.42	3825	4782	288	80	D	F	0.0622	208.5	2.65	2848	11.8	185.7	2.36	1239	14.4	122.2	1.55	662	15.7	71.0	0.90
75	84	3079	12.0	11.5	12.1	14.1	15.0	1.77	3.8	8.1	0.32	2.59	34.9	108	1.80	0.128	0.120	10.1	0.43	3837	4782	284	80	D	F	0.0717	220.8	2.63	2700	12.3	200.0	2.39	1350	14.7	143.6	1.71	796	16.0	91.4	1.09
80	89	2838	12.6	12.0	12.5	14.6	15.5	1.83	3.9	8.4	0.31	2.79	35.4	107	1.88	0.129	0.121	10.0	0.43	3838	4782	279	79	D	F	0.0817	231.8	2.61	2549	12.8	212.8	2.40	1423	15.1	163.0	1.84	909	16.3	111.7	1.26
85	94	2621	13.2	12.6	12.9	15.0	16.0	1.90	4.1	8.7	0.31	2.99	35.8	106	1.95	0.130	0.122	9.9	0.44	3829	4782	274	78	D	F	0.0921	241.4	2.57	2398	13.3	223.8	2.39	1463	15.4	180.1	1.92	996	16.5	130.7	1.39
90	99	2428	13.8	13.2	13.3	15.4	16.4	1.96	4.2	9.0	0.31	3.20	36.1	104	2.03	0.132	0.124	9.7	0.44	3813	4782	269	78	D	F	0.1029	249.8	2.53	2254	13.7	233.5	2.36	1478	15.7	195.1	1.97	1061	16.8	148.4	1.50
95	104	2256	14.3	13.7	13.7	15.8	16.8	2.03	4.3	9.3	0.31	3.41	36.3	103	2.11	0.134	0.126	9.6	0.44	3792	4782	263	77	D	F	0.1141	257.3	2.48	2119	14.2	242.0	2.33	1473	16.1	208.1	2.00	1105	17.1	164.5	1.58
100	109	2101	14.9	14.2	14.0	16.1	17.1	2.09	4.4	9.5	0.31	3.62	36.4	102	2.18	0.135	0.127	9.4	0.44	3768	4782	258	76	D	F	0.1255	263.6	2.42	1992	14.7	249.3	2.29	1454	16.4	219.3	2.02	1131	17.4	178.8	1.64
105	114	1961	15.4	14.7	14.3	16.4	17.4	2.15	4.5	9.8	0.31	3.83	36.4	101	2.26	0.137	0.129	9.3	0.44	3740	4782	252	75	D	F	0.1372	269.0	2.36	1874	15.2	255.5	2.25	1424	16.8	228.8	2.01	1142	17.7	191.4	1.68
110	119	1836	15.9	15.2	14.6	16.7	17.8	2.21	4.6	10.0	0.31	4.03	36.4	100	2.33	0.139	0.131	9.1	0.44	3711	4782	247	74	D	F	0.1491	273.7	2.30	1766	15.6	260.9	2.20	1388	17.1	237.0	1.99	1142	18.0	202.5	1.70
115	124	1723	16.4	15.7	14.9	17.0	18.1	2.26	4.7	10.2	0.31	4.24	36.4	98	2.41	0.142	0.133	9.0	0.44	3680	4782	242	73	D	F	0.1611	277.6	2.24	1666	16.1	265.5	2.14	1347	17.5	243.9	1.97	1133	18.4	212.2	1.71
120	129	1621	16.9	16.2	15.2	17.3	18.3	2.32	4.8	10.3	0.31	4.45	36.3	97	2.48	0.144	0.135	8.8	0.44	3649	4782	237	72	D	F	0.1733	281.0	2.18	1574	16.5	269.4	2.09	1304	17.9	249.8	1.94	1117	18.7	220.6	1.71
125	134	1529	17.4	16.7	15.4	17.6	18.6	2.37	4.9	10.5	0.32	4.66	36.2	96	2.56	0.146	0.137	8.7	0.44	3618	4782	232	71	D	F	0.1857	283.9	2.12	1490	17.0	272.8	2.04	1260	18.2	254.8	1.90	1097	19.0	227.9	1.70
130	139	1445	17.8	17.1	15.7	17.8	18.8	2.42	5.0	10.6	0.32	4.87	36.1	95	2.63	0.148	0.140	8.5	0.43	3587	4782	227	70	D	F	0.1981	286.2	2.06	1412	17.4	275.5	1.98	1216	18.6	259.0	1.87	1073	19.3	234.2	1.69
135	144	1369	18.3	17.6	15.9	18.0	19.1	2.47	5.1	10.8	0.32	5.08	35.9	94	2.70	0.150	0.142	8.4	0.43	3557	4782	223	69	C	F	0.2104	288.1	2.00	1342	17.8	277.8	1.93	1173	18.9	262.5	1.83	1048	19.6	239.7	1.67
140	149	1299	18.7	18.0	16.1	18.2	19.3	2.52	5.2	10.9	0.32	5.28	35.8	93	2.77	0.152	0.144	8.3	0.43	3527	4782	218	69	C	F	0.2229	289.6	1.95	1276	18.2	279.6	1.88	1131	19.3	265.4	1.78	1021	19.9	244.2	1.64
145	154	1236	19.2	18.4	16.4	18.4	19.5	2.57	5.3	11.0	0.32	5.49	35.6	92	2.84	0.154	0.146	8.1	0.43	3498	4782	214	68	C	F	0.2354	290.9	1.89	1216	18.6	281.3	1.83	1090	19.6	267.8	1.74	993	20.3	248.2	1.61
150	159	1177	19.6	18.8	16.6	18.6	19.7	2.62	5.4	11.1	0.32	5.69	35.5	91	2.91	0.156	0.148	8.0	0.42	3470	4782	210	67	C	F	0.2477	291.6	1.84	1160	19.0	282.2	1.78	1051	20.0	269.6	1.70	965	20.6	251.4	1.58
155	164	1124	20.0	19.3	16.7	18.8	19.9	2.67	5.5	11.2	0.33	5.89	35.3	90	2.98	0.158	0.150	7.9	0.42	3443	4782	207	66	C	F	0.2601	292.3	1.78	1110	19.4	283.2	1.73	1014	20.3	271.3	1.66	938	20.9	254.4	1.55
160	169	1075	20.4	19.7	16.9	19.0	20.1	2.71	5.6	11.2	0.33	6.09	35.1	89	3.05	0.161	0.152	7.8	0.42	3418	4782	203	65	C	F	0.2724	292.8	1.73	1063	19.8	283.9	1.68	978	20.6	272.5	1.61	911	21.2	256.7	1.52
165	174	1030	20.8	20.0	17.1	19.2	20.2	2.76	5.7	11.3	0.33	6.29	35.0	88	3.12	0.163	0.154	7.7	0.41	3393	4782	200	65	C	F	0.2846	293.1	1.69	1019	20.2	284.4	1.64	945	21.0	273.5	1.57	885	21.5	258.8	1.49
170	179	988	21.2	20.4	17.3	19.3	20.4	2.80	5.7	11.4	0.33	6.49	34.8	87	3.18	0.165	0.156	7.6	0.41	3370	4782	196	64	C	F	0.2967	293.1	1.64	979	20.6	284.6	1.59	913	21.3	274.1	1.53	859	21.8	260.3	1.46
175	184	949	21.6	20.8	17.4	19.5	20.6	2.84	5.8	11.4	0.33	6.69	34.7	86	3.25	0.167	0.158	7.5	0.41	3348	4782	193	63	C	F	0.3085	292.8	1.59	941	20.9	284.6	1.55	882	21.6	274.5	1.49	834	22.1	261.5	1.42
180	189	914	21.9	21.2	17.6	19.6	20.7	2.88	5.9	11.5	0.33	6.88	34.5	85	3.31	0.168	0.160	7.4	0.41	3327	4782	191	63	C	F	0.3204	292.8	1.55	907	21.3	284.7	1.51	855	21.9	275.0	1.46	811	22.4	262.8	1.39

Table A43. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 12 m Initial Density = 10000 stems/ha																																								
5	14	9882	1.1	1.0	1.9	2.4	2.5	0.68	1.3	0.5	0.74	0.36	0.9	218	1.01	0.418	0.400	0.9	0.01	1250	5182	64	36	B	F	0.0001	0.8	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	19	9600	2.2	2.0	2.9	3.6	3.8	0.75	1.7	1.0	0.63	0.44	3.5	152	1.02	0.283	0.269	2.4	0.04	1612	5182	111	42	B	F	0.0005	5.1	0.27	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	24	9178	3.1	2.9	3.9	4.8	5.1	0.82	2.0	1.6	0.55	0.54	7.1	137	1.04	0.218	0.206	4.0	0.08	1998	5182	157	50	B	F	0.0015	14.0	0.59	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	29	8653	4.0	3.8	4.8	5.9	6.3	0.90	2.2	2.3	0.49	0.66	11.0	130	1.08	0.181	0.171	5.5	0.13	2375	5182	197	57	C	F	0.0032	27.4	0.95	27	8.2	0.3	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	34	8064	4.9	4.6	5.7	7.0	7.4	0.99	2.4	2.9	0.44	0.79	15.0	127	1.11	0.159	0.150	6.8	0.18	2721	5182	231	63	C	F	0.0055	44.6	1.32	342	8.2	4.5	0.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	39	7448	5.7	5.3	6.5	8.0	8.5	1.07	2.6	3.6	0.41	0.93	18.7	124	1.16	0.145	0.136	7.9	0.22	3024	5182	258	69	C	F	0.0086	64.3	1.66	1075	8.4	17.2	0.44	2	12.2	0.1	0.00	0	0.0	0.0	0.00
35	44	6835	6.4	6.1	7.3	8.9	9.5	1.15	2.7	4.2	0.38	1.08	22.2	122	1.21	0.136	0.128	8.7	0.27	3277	5182	278	74	D	F	0.0125	85.4	1.95	1908	8.7	37.0	0.84	16	12.7	0.9	0.02	0	0.0	0.0	0.00
40	49	6245	7.2	6.8	8.0	9.7	10.4	1.23	2.8	4.8	0.36	1.24	25.2	120	1.27	0.130	0.122	9.4	0.31	3483	5182	292	77	D	F	0.0171	106.8	2.19	2577	9.0	60.8	1.25	76	12.9	4.5	0.09	7	14.5	0.5	0.01
45	54	5692	7.9	7.5	8.7	10.5	11.2	1.30	3.0	5.4	0.35	1.40	27.8	119	1.33	0.126	0.118	9.9	0.34	3644	5182	301	80	D	F	0.0225	127.8	2.38	3009	9.4	85.6	1.59	206	13.1	13.4	0.25	31	14.7	2.3	0.04
50	59	5182	8.6	8.1	9.3	11.2	12.0	1.38	3.1	5.9	0.34	1.57	29.9	117	1.39	0.124	0.116	10.2	0.37	3766	5182	306	82	D	F	0.0285	147.8	2.51	3230	9.8	109.8	1.87	401	13.3	28.3	0.48	90	14.8	7.1	0.12
55	64	4719	9.3	8.8	9.9	11.9	12.7	1.46	3.2	6.4	0.33	1.75	31.7	115	1.46	0.122	0.115	10.4	0.39	3855	5182	308	83	D	F	0.0353	166.5	2.61	3296	10.2	132.5	2.08	633	13.5	48.4	0.76	191	15.0	16.2	0.25
60	69	4302	9.9	9.4	10.5	12.5	13.4	1.53	3.4	6.9	0.32	1.94	33.2	114	1.52	0.122	0.114	10.5	0.41	3916	5182	307	83	D	F	0.0427	183.7	2.67	3259	10.7	153.2	2.23	865	13.8	71.6	1.04	327	15.2	29.9	0.43
65	74	3929	10.6	10.0	11.0	13.1	14.0	1.60	3.5	7.3	0.32	2.12	34.3	112	1.60	0.122	0.114	10.6	0.42	3954	5182	305	83	D	F	0.0507	199.3	2.70	3157	11.2	171.9	2.33	1071	14.0	95.9	1.30	480	15.4	47.1	0.64
70	79	3595	11.2	10.6	11.5	13.6	14.5	1.67	3.6	7.7	0.31	2.32	35.3	111	1.67	0.123	0.115	10.5	0.43	3974	5182	301	83	D	F	0.0593	213.2	2.71	3019	11.6	188.6	2.39	1239	14.3	119.6	1.52	635	15.6	66.8	0.85
75	84	3298	11.8	11.2	12.0	14.1	15.0	1.74	3.7	8.0	0.31	2.51	36.0	109	1.74	0.124	0.116	10.5	0.44	3980	5182	296	83	D	F	0.0684	225.7	2.69	2863	12.1	203.3	2.43	1364	14.6	141.8	1.69	776	15.9	87.4	1.04
80	89	3033	12.4	11.8	12.4	14.5	15.5	1.81	3.9	8.4	0.31	2.71	36.5	108	1.82	0.125	0.117	10.4	0.45	3974	5182	291	82	D	F	0.0780	236.7	2.67	2701	12.6	216.3	2.44	1448	14.9	161.9	1.82	897	16.1	107.9	1.21
85	94	2797	13.0	12.4	12.8	15.0	16.0	1.87	4.0	8.7	0.31	2.91	36.8	107	1.89	0.126	0.119	10.2	0.45	3959	5182	285	81	D	F	0.0881	246.4	2.63	2541	13.1	227.6	2.43	1498	15.2	179.8	1.92	994	16.4	127.5	1.36
90	99	2587	13.5	12.9	13.2	15.3	16.4	1.94	4.1	9.0	0.31	3.11	37.1	105	1.97	0.128	0.120	10.1	0.45	3938	5182	280	80	D	F	0.0985	254.8	2.58	2388	13.5	237.5	2.40	1520	15.6	195.5	1.98	1068	16.7	145.9	1.48
95	104	2399	14.1	13.5	13.5	15.7	16.8	2.00	4.2	9.2	0.31	3.31	37.3	104	2.04	0.130	0.122	9.9	0.46	3911	5182	274	79	D	F	0.1093	262.2	2.53	2243	14.0	246.0	2.37	1520	15.9	209.0	2.01	1119	17.0	162.5	1.57
100	109	2231	14.6	14.0	13.9	16.1	17.1	2.06	4.3	9.5	0.31	3.52	37.3	103	2.12	0.132	0.124	9.8	0.46	3881	5182	268	78	D	F	0.1203	268.5	2.47	2107	14.5	253.4	2.33	1504	16.3	220.7	2.03	1151	17.3	177.4	1.63
105	114	2080	15.1	14.5	14.2	16.4	17.4	2.12	4.4	9.7	0.31	3.72	37.3	101	2.19	0.134	0.126	9.6	0.46	3849	5182	262	77	D	F	0.1317	273.9	2.41	1981	14.9	259.7	2.28	1477	16.6	230.6	2.03	1167	17.6	190.6	1.67
110	119	1945	15.6	15.0	14.5	16.7	17.8	2.18	4.5	9.9	0.31	3.93	37.3	100	2.27	0.136	0.128	9.4	0.45	3815	5182	256	76	D	F	0.1432	278.6	2.34	1865	15.4	265.1	2.23	1442	17.0	239.2	2.01	1171	17.9	202.3	1.70
115	124	1823	16.1	15.5	14.8	17.0	18.1	2.23	4.6	10.1	0.31	4.13	37.2	99	2.34	0.138	0.130	9.3	0.45	3780	5182	250	75	D	F	0.1550	282.5	2.28	1758	15.8	269.7	2.18	1401	17.3	246.4	1.99	1164	18.2	212.4	1.72
120	129	1713	16.6	15.9	15.0	17.3	18.3	2.29	4.8	10.3	0.31	4.34	37.1	98	2.42	0.140	0.132	9.1	0.45	3745	5182	245	74	D	F	0.1668	285.8	2.22	1659	16.3	273.6	2.12	1357	17.7	252.5	1.96	1151	18.5	221.2	1.72
125	134	1614	17.1	16.4	15.3	17.5	18.6	2.34	4.9	10.4	0.31	4.54	37.0	97	2.49	0.142	0.134	9.0	0.45	3710	5182	240	73	D	F	0.1788	288.6	2.16	1570	16.7	277.0	2.07	1312	18.0	257.7	1.93	1132	18.8	228.9	1.71
130	139	1524	17.5	16.9	15.5	17.7	18.8	2.39	4.9	10.6	0.31	4.74	36.9	96	2.56	0.144	0.136	8.8	0.44	3675	5182	235	72	D	F	0.1909	290.9	2.10	1487	17.1	279.7	2.02	1267	18.4	262.0	1.89	1109	19.1	235.5	1.70
135	144	1442	18.0	17.3	15.8	18.0	19.1	2.44	5.0	10.7	0.32	4.95	36.7	95	2.63	0.147	0.138	8.6	0.44	3641	5182	230	71	D	F	0.2030	292.7	2.04	1411	17.6	282.0	1.96	1222	18.7	265.6	1.85	1084	19.4	241.2	1.68
140	149	1367	18.4	17.7	16.0	18.2	19.3	2.49	5.1	10.8	0.32	5.15	36.5	94	2.70	0.149	0.140	8.5	0.44	3608	5182	225	70	D	F	0.2151	294.1	1.98	1341	18.0	283.7	1.91	1178	19.0	268.5	1.80	1056	19.7	245.9	1.65
145	154	1299	18.9	18.2	16.2	18.4	19.5	2.54	5.2	11.0	0.32	5.35	36.3	93	2.77	0.151	0.142	8.4	0.44	3576	5182	221	70	C	F	0.2273	295.2	1.92	1277	18.4	285.2	1.85	1136	19.4	271.0	1.76	1029	20.1	250.1	1.63
150	159	1236	19.3	18.6	16.4	18.6	19.7	2.59	5.3	11.0	0.32	5.55	36.1	92	2.84	0.153	0.144	8.2	0.43	3545	5182	216	69	C	F	0.2394	295.9	1.86	1217	18.8	286.2	1.80	1094	19.7	272.8	1.72	1000	20.4	253.4	1.60
155	164	1179	19.7	19.0	16.6	18.8	19.9	2.63	5.4	11.1	0.32	5.75	36.0	91	2.91	0.155	0.146	8.1	0.43	3515	5182	212	68	C	F	0.2515	296.5	1.81	1163	19.2	287.1	1.75	1055	20.1	274.4	1.68	972	20.7	256.4	1.57
160	169	1127	20.1	19.4	16.8	19.0	20.1	2.68	5.5	11.2	0.32	5.95	35.8	90	2.98	0.157	0.148	8.0	0.43	3487	5182	209	67	C	F	0.2635	297.0	1.76	1113	19.5	287.8	1.70	1019	20.4	275.8	1.63	944	21.0	258.9	1.53
165	174	1078	20.5	19.8	16.9	19.1	20.2	2.72	5.6	11.3	0.33	6.14	35.6	89	3.05	0.159	0.150	7.9	0.42	3459	5182	205	66	C	F	0.2754	296.9	1.71	1066	19.9	288.0	1.66	983	20.7	276.6	1.59	916	21.3	260.8	1.50
170	179	1034	20.9	20.1	17.1	19.3	20.4	2.77	5.6	11.3	0.33	6.34	35.4	88	3.11	0.161	0.152	7.8	0.42	3434	5182	202	66	C	F	0.2872	297.0	1.66	1023	20.3	288.3	1.61	950	21.1	277.4	1.55	890	21.6	262.6	1.47
175	184	993	21.3	20.5	17.3	19.4	20.6	2.81	5.7	11.4	0.33	6.53	35.3	87	3.17	0.163	0.154	7.7	0.42	3409	5182	198	65	C	F	0.2990	296.9	1.62	984	20.6	288.4	1.57	918	21.4	277.9	1.51	865	21.9	264.1	1.44
180	189	954	21.6	20.9	17.4	19.6	20.7	2.85	5.8	11.4	0.33	6.72	35.1	86	3.24	0.165	0.156	7.5	0.41	3386	5182	195	64	C	F	0.3107	296.4	1.57	946	21.0	288.0	1.53	888	21.7	277.9	1.47	840	22.2	264.9	1.40
SI = 12 m Initial Density = 15000 stems/ha																																								
5	14	14794	0.9	0.9	1.9	2.4	2.5	0.67	1.2	0.5	0.71	0.36	1.0	247	0.82	0.343	0.327	1.0	0.01	1815	7069	87	53	C	F	0.0001	0.9	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	19	14298	1.9	1.8	2.8	3.6	3.8	0.73	1.6	1.0	0.60	0.42	4.1	164	0.84	0.233	0.220	3.0	0.05	2258	7069	148	60	C	F	0.0004	5.8	0.31	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	24	13562	2.8	2.6	3.7	4.8	5.1	0.80	1.8	1.6	0.52	0.50	8.4	146	0.86	0.180	0.169	5.0	0.10	2714	7069	206	68	C	F	0.0012	15.9	0.67	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	29	12657	3.6	3.4	4.6	5.9	6.3	0.87	2.0	2.3	0.46	0.60	13.0	138	0.89	0.151	0.141	6.9	0.16	3142	7069	256	76	D	F	0.0025	31.1	1.08	6	8.0	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	34	11661	4.4	4.1	5.4	6.9	7.4	0.94	2.2	2.9	0.42	0.71	17.7	134	0.93	0.134	0.125	8.4	0.21	3520	7069	296	83	D	F	0.0043	50.3	1.49	178	8.0	2.1	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	39	10641	5.1	4.8	6.2	7.9	8.5	1.01	2.3	3.6	0.38	0.83	22.0	130	0.97	0.123	0.114	9.7	0.27	3836	7069	326	89	D	F	0.0068	72.2	1.86	806	8.2	11.5	0.30	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	44	9646	5.8	5.5	7.0	8.8	9.5	1.09	2.4	4.2	0.36	0.96	25.9	128	1.02	0.116	0.107	10.7	0.32	4087	7069	348	93	D	F	0.0099	95.3	2.18	1789	8.4	30.3	0.69	3	12.6	0.2	0.00	0	0.0	0.0	0.00
40	49	8708	6.5	6.2	7.7	9.6	10.4	1.16	2.5	4.7	0.34	1.10	29.2	125	1.07	0.111	0.103	11.4	0.36	4279	7069	362	96	D	F	0.0136	118.6	2.43	2635	8.7	54.4	1.11	26	12.7	1.5	0.03	1	14.4	0.1	0.00
45	54	7847	7.2	6.8	8.3	10.4	11.2	1.23	2.7	5.3	0.33	1.25	32.0	123	1.13	0.108	0.101	11.9	0.40	4418	7069	370	98	D	F	0.0180	141.1	2.62	3393	9.0	82.2	1.53	97	12.9	6.1	0.11	8	14.5	0.6	0.01
50	59	7069	7.9	7.4	8.9	11.1	12.0	1.30	2.8	5.8	0.32	1.40	34.3	121	1.19	0.107	0.099	12.2	0.43	4513	7069	373	99	D	F	0.0230	162.4	2.76	3769	9.4	109.0	1.85	240	13.0	16.1	0.27	35	14.6	2.6	0.04
55	64	6374	8.5	8.1	9.5	11.8	12.7	1.37	2.9	6.2	0.31	1.55	36.2	119	1.25	0.106	0.099	12.4	0.45	4572	7069	372	99	D	F	0.0286	182.2	2.86	3936	9.7	134.5	2.11	445	13.2	32.3	0.51	95	14.8	7.7	0.12
60	69	5758	9.1	8.7	10.1	12.4	13.4	1.44	3.0	6.7	0.31	1.72	37.6	118	1.32	0.106	0.099	12.5	0.47	4602	7069	369	99	D	F	0.0348	200.1	2.91	3951	10.1	157.8	2.29	684	13.5	53.4	0.78	195	15.0	16.9	0.25
65	74	5214	9.7	9.2	10.6	12.9	14.0	1.51	3.2	7.1	0.30	1.88	38.7	116	1.38	0.107	0.099	12.4	0.48	4610	7069	363	98	D	F	0.0415	216.3	2.93	3868	10.6	178.7	2.42	926	13.7	77.6	1.05	329	15.1	30.5	0.41
70	79	4734	10.3	9.8	11.0	13.5	14.5	1.58	3.3	7.5	0.30	2.05	39.6	114	1.45	0.108	0.100	12.3	0.49	4599	7069	357	97	D	F	0.0488	230.8	2.93	3725	11.0	197.2	2.50	1146	13.9	102.8	1.30	484	15.3	47.7	0.61
75	84	4311	10.9	10.4	11.5	13.9	15.0	1.64	3.4	7.8	0.30	2.23	40.2	113	1.52	0.109	0.101	12.2	0.50	4575	7069	349	96	D	F	0.0565	243.6	2.91	3547	11.4	213.5	2.55	1372	14.1	130.1	1.55	641	15.5	67.4	0.80
80	89	3939	11.5	10.9	11.9	14.4	15.5	1.70	3.5	8.2	0.30	2.41	40.6	111	1.59	0.111	0.103	12.0	0.51	4542	7069	341	95	D	F	0.0647	254.8	2.87	3356	11.9	227.7	2.56	1509	14.4	153.1	1.72	790	15.8	88.2	0.99
85	94	3610	12.0	11.5	12.3	14.8	16.0	1.77	3.6	8.5	0.30	2.59	40.9	110	1.66	0.112	0.104	11.8	0.51	4501	7069	333	93	D	F	0.0733	264.6	2.82	3160	12.3	240.0	2.56	1604	14.7	173.9	1.85	922	16.0	109.2	1.16
90	99	3320	12.5	12.0	12.6	15.2	16.4	1.83	3.8	8.8	0.30	2.77	41.1	109	1.74	0.114	0.106	11.6	0.51	4454	7069	325	92	D	F	0.0823	273.1	2.76	2969	12.7	250.6	2.54	1662	15.0	192.3	1.95	1031	16.2	129.4	1.31
95	104	3062	13.1	12.5	13.0	15.6	16.8	1.89	3.9	9.0	0.30	2.95	41.1	107	1.81	0.116	0.108	11.4	0.51	4404	7069	317	90	D	F	0.0916	280.4	2.70	2787	13.2	259.7	2.50	1691	15.3	208.4	2.01	1116	16.5	148.3	1.43
100	109	2833	13.6	13.0	13.3	15.9	17.1	1.94	4.0	9.3	0.30	3.14	41.1	106	1.88	0.118	0.110	11.1	0.51	4352	7069	308	89	D	F	0.1012	286.7	2.63	2615	13.6	267.5	2.46	1695	15.6	222.3	2.04	1179	16.8	165.7	1.52
105	114	2629	14.1	13.5	13.6	16.2	17.4	2.00	4.1	9.5	0.30	3.32	41.0	105	1.95	0.120	0.112	10.9	0.51	4299	7069	301	87	D	F	0.1111	292.0	2.57	2453	14.0	274.2	2.41	1681	15.9	234.2	2.06	1222	17.0	181.3	1.59
110	119	2447	14.6	14.0	13.9	16.5	17.8	2.06	4.2	9.7	0.30	3.51	40.8	103	2.02	0.122	0.114	10.7	0.50	4245	7069	293	86	D	F	0.1212	296.5	2.50	2307	14.5	279.8	2.36	1656	16.2	244.4	2.06	1249	17.3	195.3	1.64
115	124	2283	15.1	14.4	14.2	16.8	18.1	2.11	4.3	9.9	0.30	3.70	40.7	102	2.09	0.125	0.116	10.5	0.50	4192	7069	286	84	D	F	0.1315	300.2	2.42	2169	14.9	284.6	2.30	1618	16.5	252.9	2.04	1259	17.6	207.5	1.68
120	129	2137	15.5	14.9	14.4	17.1	18.3	2.16	4.4	10.1	0.30	3.88	40.4	101	2.16	0.127	0.118	10.3	0.50	4139	7069	278	83	D	F	0.1419	303.3	2.35	2042	15.3	288.5	2.24	1575	16.9	260.1	2.02	1259	17.8	218.3	1.69
125	134	2005	16.0	15.3	14.7	17.3	18.6	2.22	4.5	10.2	0.30	4.07	40.2	100	2.23	0.129	0.120	10.1	0.49	4087	7069	272	82	D	F	0.1525	305.8	2.29	1928	15.7	291.8	2.18	1529	17.2	266.2	1.99	1267	18.1	228.8	1.71
130	139	1885	16.4	15.8	14.9	17.5	18.8	2.27	4.6	10.4	0.30	4.26	40.0	99	2.30	0.131	0.122	9.9	0.49	4037	7069	265	80	D	F	0.1633	307.8	2.22	1821	16.1	294.5	2.12	1481	17.5	271.2	1.95	1236	18.4	235.7	1.70
135	144	1777	16.9	16.2	15.1	17.8	19.1	2.31	4.7	10.5	0.30	4.44	39.7	98	2.37	0.133	0.124	9.7	0.48	3988	7069	259	79	D	F	0.1741	309.4	2.15	1722	16.5	296.6	2.06	1430	17.8	275.4	1.92	1214	18.7	242.6	1.69
140	149	1679	17.3	16.6	15.3	18.0	19.3	2.36	4.8	10.6	0.31	4.63	39.4	96	2.44	0.136	0.126	9.5	0.48	3941	7069	253	78	D	F	0.1849	310.5	2.09	1633	16.9	298.3	2.00	1381	18.2	278.8	1.87	1190	19.0	248.6	1.67
145	154	1589	17.7	17.0	15.5	18.2	19.5	2.41	4.9	10.8	0.31	4.82	39.2	95	2.51	0.138	0.129	9.3	0.47	3895	7069	248	77	D	F	0.1959	311.3	2.02	1549	17.3	299.6	1.95	1331	18.5	281.6	1.83	1163	19.3	253.6	1.65
150	159	1508	18.1	17.4	15.7	18.4	19.7	2.46	5.0	10.9	0.31	5.00	38.9	94	2.58	0.140	0.131	9.1	0.47	3852	7069	242	75	D	F	0.2068	311.8	1.96	1474	17.7	300.6	1.89	1284	18.8	283.8	1.79	1135	19.6	257.9	1.62
155	164	1433	18.5	17.8	15.9	18.6	19.9	2.50	5.1	10.9	0.31	5.19	38.6	93	2.64	0.142	0.133	9.0	0.46	3810	7069	237	74	D	F	0.2178	312.1	1.91	1405	18.0	301.2	1.84	1239	19.1	285.5	1.74	1108	19.8	261.6	1.60
160	169	1365	18.9	18.2	16.1	18.7	20.1	2.55	5.1	11.0	0.31	5.37	38.4	92	2.71	0.144	0.135	8.8	0.46	3770	7069	233	73	D	F	0.2286	312.1	1.85	1339	18.4	301.5	1.79	1194	19.4	286.8	1.70	1077	20.1	264.6	1.57
165	174	1302	19.3	18.6	16.3	18.9	20.2	2.59	5.2	11.1	0.32	5.55	38.1	91	2.77	0.147	0.137	8.7	0.46	3732	7069	228	72	D	F	0.2396	311.9	1.79	1283	18.8	301.7	1.74	1155	19.7	287.8	1.66	1050	20.4	267.1	1.54
170	179	1244	19.7	18.9	16.4	19.1	20.4	2.63	5.3	11.2	0.32	5.74	37.9	90	2.84	0.149	0.139	8.5	0.45	3695	7069	224	71	D	F	0.2504	311.5	1.74	1226	19.1	301.6	1.69	1113	20.0	288.4	1.61	1020	20.7	269.1	1.50
175	184	1191	20.1	19.3	16.6	19.2	20.6	2.67	5.4	11.2	0.32	5.92	37.6	89	2.90	0.151	0.141	8.4	0.45	3660	7069	220	70	D	F	0.2611	311.0	1.69	1174	19.5	301.3	1.64	1074	20.4	288.8	1.57	990	21.0	270.8	1.47
180	189	1142	20.4	19.7	16.7	19.4	20.7	2.71	5.5	11.3	0.32	6.10	37.4	88	2.96	0.153	0.143	8.3	0.44	3628	7069	216	70	C	F	0.2717	310.3	1.64	1126	19.8	300.9	1.59	1037	20.7	288.9	1.53	962	21.3	272.1	1.44

Table A44. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
		SI = 12 m Initial Density = 20000 stems/ha																																						
5	14	19697	0.8	0.8	1.8	2.4	2.5	0.67	1.2	0.5	0.69	0.35	1.1	271	0.71	0.298	0.284	1.2	0.02	2367	8825	109	70	C	F	0.0001	1.0	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	19	18966	1.8	1.6	2.7	3.6	3.8	0.72	1.5	1.0	0.58	0.41	4.6	174	0.73	0.203	0.191	3.5	0.06	2875	8825	182	78	D	F	0.0003	6.3	0.33	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	24	17887	2.6	2.4	3.6	4.7	5.1	0.78	1.7	1.6	0.50	0.48	9.4	153	0.75	0.158	0.147	5.8	0.11	3380	8825	249	86	D	F	0.0010	17.3	0.73	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	29	16574	3.4	3.1	4.5	5.9	6.3	0.84	1.8	2.2	0.44	0.57	14.6	144	0.78	0.133	0.124	8.0	0.18	3841	8825	307	94	D	F	0.0020	33.7	1.17	1	8.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	34	15146	4.1	3.8	5.3	6.9	7.4	0.91	2.0	2.9	0.40	0.67	19.8	138	0.81	0.118	0.109	9.8	0.24	4232	8825	352	101	D	F	0.0036	54.4	1.61	85	7.9	1.0	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	39	13704	4.8	4.5	6.0	7.9	8.5	0.98	2.1	3.5	0.37	0.77	24.6	135	0.85	0.109	0.100	11.2	0.31	4544	8825	385	106	D	F	0.0057	77.7	2.00	564	8.1	7.5	0.19	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	44	12318	5.5	5.1	6.8	8.8	9.5	1.05	2.2	4.1	0.35	0.89	28.7	132	0.90	0.103	0.095	12.3	0.36	4781	8825	407	110	D	F	0.0083	102.2	2.33	1535	8.2	23.9	0.55	1	12.5	0.0	0.00	0	0.0	0.0	0.00
40	49	11032	6.1	5.8	7.4	9.6	10.4	1.11	2.4	4.6	0.33	1.01	32.3	129	0.95	0.099	0.092	13.1	0.41	4951	8825	420	112	D	F	0.0115	126.7	2.60	2516	8.5	47.3	0.97	8	12.6	0.5	0.01	0	0.0	0.0	0.00
45	54	9866	6.7	6.4	8.1	10.3	11.2	1.18	2.5	5.2	0.32	1.14	35.2	127	1.01	0.097	0.090	13.6	0.45	5064	8825	427	113	D	F	0.0152	150.2	2.79	3498	8.7	76.2	1.42	47	12.7	2.8	0.05	2	14.4	0.2	0.00
50	59	8825	7.4	7.0	8.6	11.0	12.0	1.25	2.6	5.6	0.31	1.28	37.6	124	1.06	0.096	0.089	13.9	0.48	5130	8825	428	113	D	F	0.0195	172.4	2.93	4048	9.1	104.7	1.78	141	12.9	9.2	0.16	14	14.5	1.0	0.02
55	64	7907	8.0	7.6	9.2	11.7	12.7	1.32	2.7	6.1	0.30	1.42	39.5	122	1.12	0.096	0.088	14.0	0.50	5159	8825	425	113	D	F	0.0244	192.7	3.02	4346	9.4	132.2	2.07	305	13.1	21.4	0.34	47	14.6	3.7	0.06
60	69	7100	8.6	8.1	9.7	12.3	13.4	1.38	2.8	6.5	0.30	1.57	40.9	121	1.19	0.097	0.089	14.0	0.52	5159	8825	419	112	D	F	0.0297	211.2	3.07	4448	9.8	157.5	2.29	526	13.3	39.4	0.57	115	14.8	9.7	0.14
65	74	6394	9.1	8.7	10.2	12.8	14.0	1.45	2.9	6.9	0.29	1.72	42.0	119	1.25	0.097	0.090	13.9	0.53	5138	8825	411	110	D	F	0.0356	227.7	3.09	4411	10.2	180.3	2.44	773	13.5	61.8	0.84	221	15.0	19.7	0.27
70	79	5777	9.7	9.2	10.6	13.4	14.5	1.51	3.1	7.3	0.29	1.88	42.8	117	1.32	0.099	0.091	13.7	0.54	5101	8825	402	109	D	F	0.0420	242.5	3.08	4286	10.6	200.4	2.54	1019	13.7	86.7	1.10	360	15.1	33.9	0.43
75	84	5238	10.3	9.8	11.1	13.8	15.0	1.57	3.2	7.6	0.29	2.04	43.4	115	1.38	0.100	0.092	13.5	0.55	5052	8825	392	107	D	F	0.0488	255.4	3.05	4106	11.0	218.0	2.60	1289	13.8	115.3	1.38	514	15.3	51.4	0.61
80	89	4765	10.8	10.3	11.5	14.3	15.5	1.63	3.3	8.0	0.29	2.20	43.7	114	1.45	0.102	0.093	13.3	0.55	4995	8825	382	105	D	F	0.0560	266.8	3.00	3901	11.4	233.3	2.63	1471	14.1	140.0	1.58	674	15.5	71.2	0.80
85	94	4351	11.3	10.8	11.8	14.7	16.0	1.69	3.4	8.3	0.29	2.37	44.0	112	1.52	0.103	0.095	13.1	0.55	4931	8825	372	103	D	F	0.0636	276.7	2.95	3683	11.8	246.5	2.63	1608	14.3	163.0	1.74	822	15.7	92.1	0.98
90	99	3986	11.9	11.3	12.2	15.1	16.4	1.75	3.5	8.6	0.29	2.54	44.0	111	1.58	0.105	0.097	12.8	0.55	4864	8825	362	101	D	F	0.0716	285.2	2.89	3467	12.2	257.9	2.61	1705	14.6	183.7	1.86	957	15.9	112.9	1.14
95	104	3664	12.4	11.8	12.5	15.4	16.8	1.81	3.6	8.8	0.29	2.71	44.0	110	1.65	0.107	0.099	12.5	0.55	4795	8825	351	99	D	F	0.0798	292.5	2.82	3256	12.6	267.6	2.58	1765	14.9	202.0	1.95	1068	16.2	133.0	1.28
100	109	3379	12.9	12.3	12.8	15.8	17.1	1.86	3.7	9.1	0.29	2.88	43.9	108	1.72	0.109	0.101	12.2	0.55	4725	8825	342	97	D	F	0.0884	298.8	2.75	3055	13.0	275.9	2.54	1796	15.2	217.9	2.00	1156	16.4	151.9	1.40
105	114	3127	13.3	12.8	13.1	16.1	17.4	1.92	3.8	9.3	0.29	3.05	43.7	107	1.79	0.111	0.102	12.0	0.54	4655	8825	332	95	D	F	0.0972	304.0	2.67	2868	13.4	282.9	2.49	1804	15.4	231.7	2.04	1225	16.6	169.3	1.49
110	119	2901	13.8	13.2	13.4	16.4	17.8	1.97	4.0	9.5	0.29	3.22	43.5	106	1.86	0.113	0.105	11.7	0.54	4586	8825	323	93	D	F	0.1063	308.5	2.60	2691	13.8	288.8	2.43	1790	15.7	243.5	2.05	1271	16.9	185.0	1.56
115	124	2700	14.3	13.7	13.7	16.6	18.1	2.02	4.1	9.7	0.29	3.39	43.2	104	1.92	0.116	0.107	11.4	0.54	4517	8825	314	92	D	F	0.1156	312.1	2.52	2529	14.2	293.8	2.37	1765	16.0	253.5	2.05	1326	17.1	200.8	1.62
120	129	2520	14.7	14.1	13.9	16.9	18.3	2.07	4.2	9.9	0.29	3.57	43.0	103	1.99	0.118	0.109	11.2	0.53	4451	8825	306	90	D	F	0.1250	315.1	2.45	2380	14.6	297.9	2.31	1729	16.3	261.9	2.03	1340	17.3	213.0	1.65
125	134	2358	15.2	14.5	14.2	17.2	18.6	2.12	4.3	10.0	0.29	3.74	42.6	102	2.06	0.120	0.111	10.9	0.52	4386	8825	298	88	D	F	0.1346	317.5	2.37	2242	15.0	301.3	2.25	1687	16.6	269.0	2.01	1343	17.6	223.7	1.67
130	139	2212	15.6	15.0	14.4	17.4	18.8	2.17	4.4	10.2	0.30	3.92	42.3	101	2.13	0.122	0.113	10.7	0.52	4324	8825	290	87	D	F	0.1443	319.3	2.30	2117	15.4	304.0	2.19	1641	16.9	274.9	1.98	1336	17.8	233.0	1.68
135	144	2080	16.0	15.4	14.6	17.6	19.1	2.22	4.5	10.3	0.30	4.09	42.0	100	2.19	0.124	0.115	10.5	0.51	4263	8825	283	85	D	F	0.1542	320.7	2.23	2000	15.8	306.2	2.13	1590	17.2	279.7	1.94	1304	18.2	239.8	1.67
140	149	1961	16.4	15.8	14.8	17.8	19.3	2.27	4.5	10.5	0.30	4.27	41.7	99	2.26	0.127	0.117	10.3	0.51	4205	8825	276	84	D	F	0.1640	321.7	2.16	1895	16.1	307.9	2.07	1541	17.5	283.7	1.91	1288	18.4	246.9	1.66
145	154	1852	16.9	16.2	15.0	18.0	19.5	2.31	4.6	10.6	0.30	4.44	41.3	97	2.32	0.129	0.119	10.1	0.50	4149	8825	270	82	D	F	0.1741	322.4	2.10	1795	16.5	309.1	2.01	1489	17.8	287.0	1.87	1264	18.7	252.9	1.64
150	159	1753	17.3	16.6	15.2	18.2	19.7	2.36	4.7	10.7	0.30	4.61	41.0	96	2.39	0.131	0.121	9.9	0.50	4096	8825	264	81	D	F	0.1841	322.7	2.03	1705	16.9	310.0	1.95	1439	18.1	289.6	1.82	1238	19.0	258.1	1.63
155	164	1663	17.6	16.9	15.4	18.4	19.9	2.40	4.8	10.8	0.30	4.79	40.7	95	2.45	0.133	0.123	9.7	0.49	4044	8825	258	80	D	F	0.1941	322.8	1.97	1621	17.2	310.6	1.90	1388	18.4	291.6	1.78	1211	19.2	262.4	1.60
160	169	1580	18.0	17.3	15.5	18.6	20.1	2.45	4.9	10.9	0.31	4.96	40.4	94	2.52	0.136	0.125	9.5	0.49	3995	8825	252	78	D	F	0.2042	322.6	1.91	1543	17.6	310.8	1.84	1339	18.7	293.2	1.74	1181	19.5	266.1	1.58
165	174	1504	18.4	17.7	15.7	18.7	20.2	2.49	5.0	10.9	0.31	5.13	40.0	93	2.58	0.138	0.127	9.3	0.48	3949	8825	247	77	D	F	0.2142	322.2	1.85	1475	17.9	310.8	1.79	1295	19.0	294.3	1.69	1154	19.8	269.1	1.55
170	179	1434	18.8	18.0	15.9	18.9	20.4	2.53	5.1	11.0	0.31	5.30	39.7	92	2.64	0.140	0.129	9.2	0.48	3904	8825	242	76	D	F	0.2243	321.6	1.80	1405	18.3	310.6	1.74	1248	19.3	295.1	1.65	1121	20.0	271.6	1.52
175	184	1370	19.1	18.4	16.0	19.0	20.6	2.57	5.1	11.1	0.31	5.48	39.4	91	2.70	0.142	0.131	9.0	0.47	3862	8825	237	75	D	F	0.2342	320.9	1.75	1346	18.6	310.3	1.69	1206	19.6	295.6	1.61	1092	20.3	273.7	1.49
180	189	1311	19.5	18.7	16.1	19.2	20.7	2.61	5.2	11.1	0.31	5.65	39.1	90	2.76	0.144	0.133	8.9	0.47	3821	8825	233	74	D	F	0.2441	320.0	1.69	1288	19.0	309.7	1.64	1163	19.9	295.8	1.57	1062	20.6	275.3	1.46
		SI = 12 m Initial Density = 30000 stems/ha																																						
5	14	29485	0.7	0.6	1.8	2.4	2.5	0.67	1.1	0.5	0.66	0.35	1.1	313	0.58	0.245	0.232	1.4	0.02	3448	12097	150	103	D	F	0.0000	1.0	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	19	28242	1.5	1.4	2.6	3.6	3.8	0.71	1.3	1.0	0.55	0.39	5.3	190	0.60	0.167	0.157	4.3	0.07	4056	12097	242	111	D	F	0.0002	6.9	0.37	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	24	26418	2.3	2.1	3.4	4.7	5.1	0.76	1.5	1.6	0.47	0.45	11.0	164	0.62	0.130	0.121	7.2	0.14	4626	12097	326	120	D	F	0.0007	19.2	0.81	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	29	24230	3.0	2.8	4.2	5.8	6.3	0.81	1.6	2.2	0.42	0.53	17.1	153	0.64	0.110	0.102	9.9	0.21	5114	12097	395	128	D	F	0.0015	37.3	1.29	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	34	21894	3.7	3.4	5.0	6.8	7.4	0.87	1.8	2.8	0.38	0.61	23.0	146	0.68	0.099	0.091	12.0	0.29	5500	12097	448	133	D	F	0.0027	60.0	1.77	19	7.8	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	39	19579	4.3	4.0	5.7	7.8	8.5	0.93	1.9	3.4	0.35	0.70	28.4	141	0.71	0.092	0.084	13.7	0.36	5782	12097	484	137	D	F	0.0044	85.2	2.20	257	7.9	3.2	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	44	17399	4.9	4.6	6.4	8.7	9.5	0.99	2.0	4.0	0.33	0.80	33.0	138	0.76	0.087	0.080	14.9	0.42	5973	12097	506	139	D	F	0.0064	111.5	2.55	1028	8.0	14.3	0.33	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	49	15414	5.5	5.2	7.0	9.5	10.4	1.05	2.1	4.5	0.31	0.90	36.9	134	0.81	0.085	0.077	15.7	0.47	6086	12097	518	139	D	F	0.0089	137.4	2.82	2068	8.2	34.2	0.70	1	12.5	0.1	0.00	0	0.0	0.0	0.00
45	54	13648	6.1	5.8	7.6	10.2	11.2	1.12	2.2	5.0	0.30	1.01	40.0	132	0.86	0.084	0.076	16.2	0.52	6139	12097	521	138	D	F	0.0119	162.1	3.01	3325	8.4	62.6	1.16	11	12.6	0.6	0.01	0	0.0	0.0	0.00
50	59	12097	6.7	6.3	8.2	10.9	12.0	1.18	2.3	5.4	0.29	1.13	42.5	129	0.91	0.083	0.076	16.4	0.55	6145	12097	518	137	D	F	0.0153	185.1	3.15	4176	8.7	92.5	1.57	49	12.7	3.0	0.05	2	14.4	0.2	0.00
55	64	10748	7.3	6.9	8.7	11.6	12.7	1.24	2.4	5.9	0.29	1.26	44.4	127	0.96	0.083	0.076	16.5	0.57	6116	12097	511	135	D	F	0.0192	206.2	3.23	4741	9.0	122.4	1.92	139	12.9	9.3	0.15	12	14.5	0.9	0.01
60	69	9579	7.8	7.4	9.2	12.2	13.4	1.30	2.5	6.3	0.28	1.38	45.8	125	1.02	0.084	0.076	16.4	0.59	6061	12097	501	133	D	F	0.0235	225.2	3.27	5042	9.3	150.6	2.19	294	13.0	20.9	0.30	40	14.6	3.2	0.05
65	74	8568	8.3	7.9	9.6	12.7	14.0	1.36	2.7	6.6	0.28	1.52	46.9	123	1.08	0.085	0.077	16.2	0.60	5988	12097	489	130	D	F	0.0283	242.1	3.28	5140	9.6	176.2	2.39	505	13.2	38.0	0.51	98	14.7	8.3	0.11
70	79	7694	8.9	8.4	10.1	13.2	14.5	1.42	2.8	7.0	0.28	1.65	47.6	121	1.14	0.086	0.079	16.0	0.61	5903	12097	475	127	D	F	0.0334	257.1	3.26	5094	10.0	198.9	2.52	749	13.4	59.6	0.76	190	14.9	17.0	0.22
75	84	6936	9.4	8.9	10.5	13.7	15.0	1.47	2.9	7.3	0.28	1.79	48.1	119	1.20	0.088	0.080	15.7	0.62	5809	12097	462	124	D	F	0.0390	270.3	3.23	4951	10.3	218.8	2.61	1053	13.5	87.2	1.04	314	15.0	29.4	0.35
80	89	6277	9.9	9.4	10.8	14.1	15.5	1.53	3.0	7.7	0.28	1.93	48.3	118	1.26	0.090	0.081	15.4	0.62	5711	12097	448	121	D	F	0.0449	281.7	3.17	4751	10.7	236.0	2.66	1286	13.7	112.7	1.27	460	15.2	45.3	0.51
85	94	5703	10.4	9.9	11.2	14.5	16.0	1.58	3.1	7.9	0.28	2.08	48.4	116	1.32	0.091	0.083	15.0	0.62	5610	12097	434	119	D	F	0.0511	291.7	3.11	4521	11.0	250.9	2.67	1487	13.9	137.6	1.47	615	15.4	63.6	0.68
90	99	5202	10.9	10.4	11.5	14.9	16.4	1.64	3.2	8.2	0.28	2.22	48.4	114	1.39	0.093	0.085	14.7	0.61	5509	12097	421	116	D	F	0.0577	300.2	3.04	4276	11.4	263.6	2.67	1647	14.1	161.1	1.63	767	15.5	83.4	0.84
95	104	4762	11.4	10.8	11.8	15.2	16.8	1.69	3.3	8.5	0.28	2.37	48.2	113	1.45	0.095	0.086	14.3	0.61	5408	12097	408	113	D	F	0.0646	307.5	2.96	4033	11.8	274.4	2.64	1769	14.4	182.5	1.76	910	15.7	103.7	1.00
100	109	4374	11.8	11.3	12.1	15.6	17.1	1.74	3.4	8.7	0.28	2.52	48.0	112	1.51	0.097	0.088	14.0	0.61	5308	12097	395	110	D	F	0.0717	313.7	2.88	3794	12.1	283.7	2.61	1852	14.6	201.7	1.85	1034	15.9	123.7	1.14
105	114	4032	12.3	11.7	12.4	15.9	17.4	1.80	3.5	8.9	0.28	2.68	47.7	110	1.57	0.099	0.090	13.6	0.60	5211	12097	383	108	D	F	0.0791	318.9	2.80	3568	12.5	291.4	2.56	1905	14.8	218.5	1.92	1140	16.1	142.8	1.25
110	119	3728	12.7	12.1	12.7	16.2	17.8	1.85	3.6	9.1	0.28	2.83	47.4	109	1.64	0.101	0.092	13.3	0.60	5116	12097	371	105	D	F	0.0867	323.3	2.72	3351	12.9	298.0	2.51	1928	15.1	233.2	1.96	1258	16.3	163.2	1.37
115	124	3458	13.2	12.6	12.9	16.4	18.1	1.90	3.7	9.3	0.28	2.98	47.0	108	1.70	0.104	0.094	13.0	0.59	5024	12097	360	103	D	F	0.0945	326.8	2.64	3152	13.2	303.4	2.45	1934	15.3	245.8	1.99	1323	16.5	179.4	1.45
120	129	3216	13.6	13.0	13.1	16.7	18.3	1.94	3.8	9.5	0.28	3.14	46.6	106	1.76	0.106	0.096	12.7	0.58	4935	12097	350	101	D	F	0.1025	329.7	2.56	2964	13.6	307.9	2.39	1920	15.6	256.6	1.99	1367	16.7	194.1	1.51
125	134	3000	14.0	13.4	13.4	16.9	18.6	1.99	3.9	9.7	0.28	3.29	46.2	105	1.83	0.108	0.098	12.4	0.58	4850	12097	340	99	D	F	0.1106	331.9	2.48	2793	14.0	311.6	2.33	1894	15.9	265.7	1.99	1396	16.9	207.2	1.55
130	139	2805	14.4	13.8	13.6	17.2	18.8	2.04	4.0	9.8	0.29	3.45	45.8	104	1.89	0.110	0.100	12.1	0.57	4768	12097	331	97	D	F	0.1190	333.7	2.40	2634	14.3	314.6	2.27	1860	16.1	273.4	1.97	1413	17.2	218.8	1.58
135	144	2630	14.8	14.2	13.8	17.4	19.1	2.08	4.1	10.0	0.29	3.60	45.4	103	1.95	0.112	0.102	11.8	0.56	4689	12097	322	95	D	F	0.1273	334.9	2.33	2486	14.7	317.0	2.20	1817	16.4	279.8	1.95	1417	17.4	229.0	1.59
140	149	2472	15.2	14.6	14.0	17.6	19.3	2.13	4.2	10.1	0.29	3.76	44.9	102	2.01	0.114	0.104	11.5	0.55	4614	12097	313	93	D	F	0.1358	335.7	2.26	2350	15.0	318.8	2.14	1770	16.7	285.1	1.92	1391	17.7	236.4	1.59
145	154	2328	15.6	14.9	14.2	17.8	19.5	2.17	4.3	10.2	0.29	3.91	44.5	101	2.07	0.117	0.106	11.3	0.55	4542	12097	305	91	D	F	0.1444	336.2	2.19	2224	15.4	320.1	2.08	1720	16.9	289.5	1.88	1381	17.9	244.3	1.59
150	159	2197	16.0	15.3	14.3	18.0	19.7	2.21	4.4	10.3	0.29	4.07	44.1	99	2.13	0.119	0.108	11.0	0.54	4473	12097	298	89	D	F	0.1531	336.3	2.12	2110	15.7	321.0	2.02	1670	17.2	293.1	1.85	1367	18.2	251.1	1.58
155	164	2078	16.4	15.7	14.5	18.1	19.9	2.26	4.4	10.4	0.29	4.23	43.7	98	2.19	0.121	0.110	10.8	0.53	4407	12097	290	88	D	F	0.1618	336.2	2.05	2002	16.1	321.6	1.96	1618	17.5	295.9	1.81	1346	18.4	256.9	1.57
160	169	1969	16.7	16.0	14.7	18.3	20.1	2.30	4.5	10.5	0.30	4.38	43.3	97	2.25	0.123	0.112	10.6	0.53	4345	12097	284	86	D	F	0.1705	335.8	1.99	1907	16.4	321.8	1.91	1568	17.8	298.1	1.77	1324	18.6	261.9	1.55
165	174	1870	17.1	16.4	14.8	18.5	20.2	2.34	4.6	10.6	0.30	4.54	42.9	96	2.31	0.125	0.114	10.4	0.52	4285	12097	277	85	D	F	0.1793	335.2	1.93	1815	16.7	321.8	1.85	1517	18.0	299.8	1.72	1298	18.9	266.2	1.53
170	179	1778	17.4	16.7	15.0	18.6	20.4	2.38	4.7	10.7	0.30	4.69	42.5	95	2.37	0.127	0.116	10.2	0.51	4227	12097	271	83	D	F	0.1881	334.4	1.87	1731	17.0	321.5	1.80	1467	18.3	301.1	1.68	1271	19.1	269.7	1.51
175	184	1694	17.8	17.1	15.1	18.7	20.6	2.42	4.8	10.8	0.30	4.85	42.1	94	2.43	0.130	0.118	10.0	0.51	4173	12097	265	82	D	F	0.1969	333.5	1.81	1650	17.4	321.0	1.75	1417	18.6	301.9	1.64	1240	19.4	272.7	1.48
180	189	1617	18.1	17.4	15.2	18.9	20.7	2.45	4.8	10.8	0.31	5.00	41.7	93	2.49	0.132	0.120	9.8	0.50	4121	12097	260	81	D	F	0.2056	332.4	1.76	1582	17.7	320.3	1.70	1373	18.8	302.4	1.60	1213	19.6	275.1	1.46

Table A45. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 12 m Initial Density = 50000 stems/ha																																								
5	14	49019	0.5	0.5	1.7	2.4	2.5	0.66	1.0	0.6	0.63	0.34	1.2	387	0.45	0.191	0.180	1.6	0.02	5557	18085	225	168	D	F	0.0000	1.0	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	19	46637	1.3	1.2	2.4	3.5	3.8	0.69	1.2	1.0	0.52	0.38	6.2	215	0.46	0.131	0.122	5.5	0.08	6299	18085	348	176	D	F	0.0002	7.6	0.40	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	24	43175	2.0	1.8	3.2	4.7	5.1	0.73	1.3	1.6	0.44	0.42	13.1	180	0.48	0.103	0.095	9.3	0.17	6920	18085	457	183	D	F	0.0005	21.4	0.90	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	29	39095	2.6	2.4	4.0	5.8	6.3	0.78	1.4	2.2	0.39	0.48	20.4	165	0.51	0.088	0.080	12.7	0.27	7388	18085	543	188	D	F	0.0011	41.6	1.44	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	34	34833	3.2	3.0	4.7	6.8	7.4	0.83	1.5	2.7	0.35	0.55	27.4	157	0.54	0.079	0.072	15.4	0.36	7700	18085	605	190	D	F	0.0019	66.5	1.97	1	7.7	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	39	30712	3.7	3.5	5.3	7.7	8.5	0.88	1.6	3.3	0.32	0.62	33.6	151	0.57	0.074	0.067	17.4	0.44	7874	18085	643	190	D	F	0.0031	93.8	2.42	48	7.8	0.5	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	44	26924	4.3	4.0	5.9	8.6	9.5	0.93	1.7	3.8	0.31	0.70	38.9	146	0.61	0.071	0.064	18.8	0.51	7938	18085	664	188	D	F	0.0045	121.7	2.78	398	7.8	4.9	0.11	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	49	23554	4.8	4.5	6.5	9.4	10.4	0.98	1.8	4.2	0.29	0.78	43.1	142	0.65	0.070	0.063	19.6	0.57	7921	18085	671	184	D	F	0.0063	149.0	3.05	1178	8.0	16.9	0.35	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	54	20616	5.4	5.0	7.0	10.1	11.2	1.04	1.9	4.7	0.28	0.87	46.5	138	0.70	0.069	0.062	20.1	0.61	7846	18085	667	180	D	F	0.0085	174.7	3.25	2492	8.1	39.5	0.73	1	12.5	0.0	0.00	0	0.0	0.0	0.00
50	59	18085	5.9	5.5	7.5	10.8	12.0	1.09	2.0	5.1	0.28	0.97	49.0	135	0.74	0.069	0.062	20.2	0.65	7731	18085	657	175	D	F	0.0110	198.5	3.38	3664	8.3	67.2	1.14	6	12.5	0.3	0.01	0	0.0	0.0	0.00
55	64	15919	6.4	6.0	8.0	11.4	12.7	1.14	2.1	5.5	0.27	1.07	50.9	133	0.79	0.070	0.062	20.2	0.67	7590	18085	642	170	D	F	0.0138	220.0	3.45	4636	8.5	97.8	1.53	27	12.7	1.8	0.03	1	14.3	0.1	0.00
60	69	14070	6.9	6.5	8.4	12.0	13.4	1.20	2.2	5.9	0.27	1.17	52.3	130	0.84	0.070	0.063	19.9	0.69	7434	18085	625	165	D	F	0.0170	239.3	3.48	5328	8.8	128.5	1.87	87	12.8	5.8	0.08	5	14.4	0.4	0.01
65	74	12491	7.4	7.0	8.9	12.5	14.0	1.25	2.3	6.2	0.27	1.28	53.3	128	0.89	0.072	0.064	19.6	0.70	7270	18085	606	160	D	F	0.0205	256.4	3.47	5742	9.1	157.4	2.13	197	12.9	13.9	0.19	19	14.5	1.5	0.02
70	79	11140	7.8	7.4	9.2	13.0	14.5	1.30	2.4	6.6	0.27	1.39	53.9	126	0.95	0.073	0.065	19.2	0.70	7102	18085	586	155	D	F	0.0244	271.4	3.44	5929	9.3	183.7	2.33	362	13.0	26.8	0.34	51	14.6	4.3	0.05
75	84	9981	8.3	7.9	9.6	13.4	15.0	1.35	2.5	6.9	0.26	1.51	54.2	124	1.00	0.074	0.067	18.8	0.71	6934	18085	566	150	D	F	0.0285	284.6	3.40	5944	9.6	207.0	2.47	617	13.1	46.9	0.56	110	14.7	9.5	0.11
80	89	8982	8.8	8.3	9.9	13.9	15.5	1.40	2.6	7.2	0.26	1.62	54.3	122	1.06	0.076	0.068	18.3	0.71	6768	18085	546	146	D	F	0.0330	296.0	3.33	5839	9.9	227.4	2.56	858	13.3	68.4	0.77	196	14.9	17.9	0.20
85	94	8119	9.2	8.8	10.2	14.3	16.0	1.45	2.7	7.4	0.26	1.74	54.2	121	1.11	0.078	0.070	17.9	0.70	6606	18085	527	142	D	F	0.0377	305.9	3.26	5657	10.2	245.0	2.61	1101	13.4	91.9	0.98	309	15.0	29.3	0.31
90	99	7369	9.7	9.2	10.5	14.6	16.4	1.50	2.8	7.7	0.26	1.87	54.0	119	1.16	0.080	0.071	17.4	0.70	6449	18085	509	137	D	F	0.0427	314.4	3.18	5427	10.5	260.1	2.63	1326	13.6	115.9	1.17	441	15.1	43.6	0.44
95	104	6715	10.1	9.6	10.8	15.0	16.8	1.55	2.9	8.0	0.26	1.99	53.7	117	1.22	0.082	0.073	16.9	0.69	6297	18085	491	134	D	F	0.0479	321.7	3.10	5171	10.8	273.0	2.63	1523	13.8	139.4	1.34	582	15.3	60.1	0.58
100	109	6143	10.5	10.0	11.1	15.3	17.1	1.60	3.0	8.2	0.27	2.11	53.4	116	1.28	0.084	0.075	16.5	0.69	6151	18085	475	130	D	F	0.0534	327.8	3.01	4906	11.1	284.0	2.61	1689	14.0	161.7	1.49	726	15.4	77.9	0.72
105	114	5639	10.9	10.4	11.3	15.6	17.4	1.64	3.1	8.4	0.27	2.24	52.9	115	1.33	0.086	0.076	16.0	0.68	6012	18085	459	126	D	F	0.0590	332.9	2.93	4642	11.5	293.3	2.58	1819	14.2	182.3	1.60	863	15.6	96.3	0.85
110	119	5194	11.3	10.8	11.6	15.9	17.8	1.69	3.2	8.6	0.27	2.37	52.5	113	1.39	0.088	0.078	15.6	0.67	5878	18085	444	123	D	F	0.0649	337.1	2.84	4384	11.8	301.1	2.53	1917	14.4	200.9	1.69	1030	15.7	117.8	0.99
115	124	4800	11.7	11.2	11.8	16.1	18.1	1.73	3.3	8.8	0.27	2.50	51.9	112	1.44	0.090	0.080	15.2	0.66	5751	18085	429	120	D	F	0.0710	340.6	2.75	4136	12.1	307.6	2.48	1985	14.6	217.4	1.76	1140	15.8	135.7	1.10
120	129	4449	12.1	11.6	12.0	16.4	18.3	1.78	3.4	9.0	0.27	2.63	51.4	111	1.50	0.092	0.082	14.8	0.65	5629	18085	416	117	D	F	0.0772	343.3	2.67	3902	12.4	313.0	2.43	2028	14.8	232.0	1.80	1234	16.0	152.7	1.19
125	134	4135	12.5	11.9	12.2	16.6	18.6	1.82	3.5	9.1	0.27	2.76	50.9	109	1.56	0.094	0.084	14.4	0.64	5513	18085	403	114	D	F	0.0836	345.5	2.58	3681	12.7	317.4	2.37	2047	15.0	244.7	1.83	1309	16.2	168.5	1.26
130	139	3854	12.9	12.3	12.4	16.8	18.8	1.86	3.6	9.3	0.27	2.89	50.3	108	1.61	0.096	0.085	14.0	0.63	5402	18085	391	111	D	F	0.0901	347.1	2.50	3475	13.0	321.0	2.31	2050	15.2	255.6	1.84	1368	16.4	183.0	1.32
135	144	3602	13.3	12.7	12.6	17.0	19.1	1.91	3.7	9.4	0.28	3.02	49.8	107	1.67	0.098	0.087	13.7	0.62	5296	18085	379	109	D	F	0.0967	348.2	2.42	3284	13.3	323.9	2.25	2039	15.4	265.0	1.84	1413	16.6	196.2	1.36
140	149	3374	13.6	13.0	12.8	17.2	19.3	1.95	3.7	9.6	0.28	3.15	49.2	106	1.72	0.100	0.089	13.3	0.61	5196	18085	368	106	D	F	0.1034	348.9	2.34	3106	13.7	326.2	2.19	2016	15.7	273.0	1.83	1444	16.8	208.1	1.40
145	154	3168	14.0	13.4	12.9	17.4	19.5	1.99	3.8	9.7	0.28	3.28	48.7	105	1.78	0.102	0.091	13.0	0.61	5100	18085	358	104	D	F	0.1103	349.3	2.27	2940	14.0	327.9	2.13	1985	15.9	279.7	1.82	1435	17.0	216.6	1.41
150	159	2981	14.3	13.7	13.1	17.6	19.7	2.03	3.9	9.8	0.28	3.42	48.1	103	1.83	0.104	0.093	12.7	0.60	5009	18085	348	102	D	F	0.1172	349.3	2.20	2785	14.3	329.1	2.07	1947	16.1	285.4	1.80	1445	17.2	226.2	1.42
155	164	2811	14.7	14.0	13.2	17.8	19.9	2.07	4.0	9.9	0.28	3.55	47.6	102	1.89	0.106	0.095	12.4	0.59	4922	18085	339	100	D	F	0.1242	349.0	2.13	2644	14.6	329.9	2.01	1905	16.3	290.1	1.77	1449	17.4	234.6	1.43
160	169	2655	15.0	14.4	13.4	17.9	20.1	2.10	4.1	10.0	0.29	3.68	47.1	101	1.94	0.108	0.097	12.1	0.58	4840	18085	331	98	D	F	0.1312	348.4	2.06	2513	14.9	330.3	1.96	1860	16.6	293.9	1.74	1446	17.6	242.1	1.43
165	174	2514	15.4	14.7	13.5	18.1	20.2	2.14	4.2	10.1	0.29	3.81	46.6	100	1.99	0.110	0.099	11.9	0.57	4761	18085	322	96	D	F	0.1383	347.7	2.00	2390	15.2	330.4	1.90	1812	16.8	297.0	1.71	1437	17.8	248.5	1.43
170	179	2384	15.7	15.0	13.7	18.2	20.4	2.18	4.3	10.2	0.29	3.95	46.1	99	2.05	0.112	0.100	11.6	0.56	4686	18085	315	94	D	F	0.1454	346.7	1.94	2276	15.5	330.3	1.85	1764	17.0	299.5	1.67	1423	18.0	254.2	1.42
175	184	2264	16.0	15.3	13.8	18.4	20.6	2.22	4.3	10.2	0.29	4.08	45.6	98	2.10	0.114	0.102	11.4	0.56	4615	18085	307	92	D	F	0.1527	345.6	1.88	2169	15.8	329.9	1.79	1714	17.3	301.4	1.64	1404	18.2	259.0	1.41
180	189	2154	16.3	15.6	13.9	18.5	20.7	2.25	4.4	10.3	0.29	4.21	45.2	97	2.15	0.116	0.104	11.2	0.55	4547	18085	300	91	D	F	0.1598	344.3	1.82	2071	16.0	329.2	1.74	1664	17.5	302.8	1.60	1382	18.4	263.2	1.39
SI = 12 m Initial Density = 80000 stems/ha																																								
5	14	78251	0.4	0.4	1.6	2.3	2.5	0.66	0.9	0.6	0.59	0.34	1.1	492	0.36	0.152	0.142	1.7	0.02	8648	26309	329	266	D	F	0.0000	0.9	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	19	73989	1.1	1.0	2.3	3.5	3.8	0.68	1.0	1.1	0.48	0.37	7.0	243	0.37	0.105	0.097	6.7	0.10	9506	26309	487	271	D	F	0.0001	8.1	0.43	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	24	67847	1.7	1.6	3.0	4.6	5.1	0.72	1.1	1.6	0.41	0.40	15.1	198	0.38	0.083	0.076	11.6	0.21	10107	26309	624	273	D	F	0.0003	23.1	0.97	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	29	60722	2.2	2.1	3.7	5.7	6.3	0.75	1.2	2.1	0.36	0.45	23.7	179	0.41	0.071	0.065	15.9	0.32	10454	26309	727	272	D	F	0.0007	45.0	1.56	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	34	53428	2.8	2.6	4.3	6.7	7.4	0.79	1.3	2.6	0.33	0.50	31.8	168	0.43	0.065	0.058	19.1	0.43	10580	26309	795	267	D	F	0.0013	71.6	2.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	39	46525	3.3	3.1	4.9	7.6	8.5	0.84	1.4	3.1	0.30	0.56	38.8	160	0.46	0.061	0.055	21.5	0.52	10538	26309	834	259	D	F	0.0022	100.3	2.58	4	7.7	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	44	40312	3.8	3.5	5.4	8.5	9.5	0.88	1.5	3.5	0.29	0.62	44.5	154	0.50	0.059	0.053	23.0	0.60	10382	26309	849	250	D	F	0.0032	129.3	2.95	85	7.7	1.0	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	49	34890	4.2	4.0	6.0	9.3	10.4	0.93	1.6	4.0	0.28	0.69	49.1	149	0.54	0.058	0.052	23.9	0.66	10153	26309	847	240	D	F	0.0045	157.3	3.22	438	7.8	5.6	0.11	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	54	30247	4.7	4.4	6.4	10.0	11.2	0.97	1.7	4.4	0.27	0.76	52.6	145	0.57	0.058	0.051	24.3	0.71	9884	26309	835	231	D	F	0.0061	183.4	3.41	1367	7.9	18.8	0.35	0	0.0	0.0	0.00	0	0.0	0.0	0.00
50	59	26309	5.2	4.9	6.9	10.6	12.0	1.02	1.8	4.8	0.26	0.84	55.2	142	0.62	0.058	0.051	24.3	0.74	9594	26309	815	221	D	F	0.0079	207.3	3.53	2515	8.0	39.3	0.67	0	0.0	0.0	0.00	0	0.0	0.0	0.00
55	64	22984	5.6	5.3	7.3	11.2	12.7	1.06	1.9	5.1	0.26	0.92	57.1	139	0.66	0.059	0.052	24.1	0.77	9298	26309	791	212	D	F	0.0100	228.8	3.59	3717	8.2	65.8	1.03	2	12.5	0.2	0.00	0	0.0	0.0	0.00
60	69	20178	6.1	5.7	7.7	11.8	13.4	1.11	1.9	5.5	0.26	1.01	58.4	136	0.70	0.060	0.053	23.7	0.78	9004	26309	764	203	D	F	0.0123	247.9	3.60	4775	8.4	95.4	1.39	13	12.6	0.9	0.01	0	0.0	0.0	0.00
65	74	17806	6.5	6.2	8.1	12.3	14.0	1.16	2.0	5.8	0.26	1.09	59.3	133	0.75	0.061	0.054	23.2	0.79	8718	26309	737	195	D	F	0.0149	264.8	3.59	5588	8.6	125.4	1.70	46	12.7	3.1	0.04	2	14.3	0.1	0.00
70	79	15795	6.9	6.6	8.4	12.8	14.5	1.20	2.1	6.1	0.25	1.19	59.7	131	0.80	0.062	0.055	22.7	0.79	8443	26309	709	187	D	F	0.0177	279.6	3.55	6136	8.8	154.1	1.96	113	12.8	7.9	0.10	7	14.4	0.6	0.01
75	84	14083	7.4	7.0	8.7	13.2	15.0	1.25	2.2	6.4	0.25	1.28	59.9	129	0.84	0.064	0.056	22.1	0.79	8180	26309	682	180	D	F	0.0208	292.5	3.49	6447	9.1	180.4	2.15	250	12.8	17.8	0.21	22	14.5	1.8	0.02
80	89	12618	7.8	7.4	9.0	13.6	15.5	1.29	2.3	6.7	0.25	1.38	59.9	127	0.89	0.065	0.057	21.5	0.79	7930	26309	655	174	D	F	0.0241	303.7	3.42	6569	9.3	204.0	2.30	415	12.9	30.8	0.35	52	14.6	4.5	0.05
85	94	11359	8.2	7.7	9.3	14.0	16.0	1.34	2.4	6.9	0.25	1.47	59.7	125	0.94	0.067	0.059	20.9	0.79	7693	26309	630	167	D	F	0.0276	313.4	3.34	6548	9.5	224.7	2.40	616	13.1	47.4	0.51	102	14.7	9.1	0.10
90	99	10271	8.6	8.1	9.6	14.4	16.4	1.38	2.5	7.2	0.26	1.57	59.3	123	0.99	0.069	0.060	20.3	0.78	7469	26309	606	162	D	F	0.0313	321.7	3.26	6427	9.8	242.7	2.46	834	13.2	66.7	0.68	175	14.8	16.1	0.16
95	104	9327	9.0	8.5	9.8	14.7	16.8	1.42	2.6	7.4	0.26	1.68	58.9	122	1.04	0.070	0.062	19.7	0.77	7257	26309	584	156	D	F	0.0352	328.7	3.17	6236	10.1	258.2	2.49	1055	13.3	87.6	0.84	269	14.9	25.7	0.25
100	109	8503	9.3	8.9	10.1	15.0	17.1	1.47	2.7	7.6	0.26	1.78	58.4	120	1.08	0.072	0.063	19.1	0.76	7057	26309	562	151	D	F	0.0394	334.7	3.08	6004	10.3	271.4	2.49	1266	13.5	109.2	1.00	381	15.0	37.5	0.34
105	114	7782	9.7	9.2	10.3	15.3	17.4	1.51	2.8	7.8	0.26	1.88	57.8	118	1.13	0.074	0.065	18.5	0.75	6868	26309	542	146	D	F	0.0437	339.7	2.98	5746	10.6	282.8	2.48	1459	13.6	130.6	1.15	537	15.1	53.6	0.47
110	119	7147	10.1	9.6	10.5	15.6	17.8	1.55	2.9	8.0	0.26	1.99	57.2	117	1.18	0.076	0.067	18.0	0.74	6690	26309	522	142	D	F	0.0481	343.8	2.89	5481	10.8	292.3	2.46	1626	13.8	151.2	1.27	668	15.2	69.0	0.58
115	124	6585	10.5	9.9	10.7	15.8	18.1	1.59	2.9	8.2	0.26	2.09	56.5	116	1.23	0.078	0.068	17.5	0.73	6521	26309	504	138	D	F	0.0527	347.2	2.80	5212	11.1	300.4	2.43	1767	14.0	170.4	1.38	798	15.3	85.1	0.69
120	129	6087	10.8	10.3	10.9	16.1	18.3	1.63	3.0	8.4	0.26	2.20	55.9	114	1.28	0.080	0.070	17.0	0.72	6361	26309	487	134	D	F	0.0575	349.9	2.72	4948	11.4	307.2	2.38	1879	14.1	188.2	1.46	920	15.5	101.4	0.79
125	134	5643	11.2	10.6	11.1	16.3	18.6	1.67	3.1	8.5	0.26	2.31	55.2	113	1.33	0.082	0.072	16.5	0.71	6211	26309	471	130	D	F	0.0624	352.0	2.63	4693	11.7	312.8	2.34	1966	14.3	204.3	1.53	1031	15.6	117.6	0.88
130	139	5246	11.5	10.9	11.2	16.5	18.8	1.71	3.2	8.7	0.27	2.42	54.5	112	1.38	0.084	0.073	16.1	0.69	6068	26309	456	127	D	F	0.0674	353.5	2.55	4449	11.9	317.5	2.29	2029	14.5	218.7	1.58	1132	15.8	133.3	0.96
135	144	4890	11.8	11.3	11.4	16.7	19.1	1.74	3.3	8.8	0.27	2.53	53.9	111	1.43	0.086	0.075	15.7	0.68	5933	26309	442	124	D	F	0.0725	354.6	2.47	4217	12.2	321.3	2.23	2071	14.7	231.5	1.61	1218	15.9	148.2	1.03
140	149	4569	12.2	11.6	11.5	16.9	19.3	1.78	3.4	8.9	0.27	2.64	53.2	109	1.48	0.088	0.077	15.2	0.67	5805	26309	429	121	D	F	0.0778	355.3	2.39	4000	12.5	324.3	2.18	2096	14.8	242.8	1.63	1292	16.1	162.2	1.09
145	154	4280	12.5	11.9	11.7	17.1	19.5	1.82	3.4	9.1	0.27	2.75	52.5	108	1.53	0.089	0.078	14.9	0.66	5684	26309	416	118	D	F	0.0831	355.6	2.31	3793	12.7	326.8	2.12	2103	15.0	252.6	1.64	1311	16.3	172.4	1.12
150	159	4017	12.8	12.2	11.8	17.3	19.7	1.85	3.5	9.2	0.27	2.86	51.9	107	1.58	0.091	0.080	14.5	0.65	5569	26309	404	115	D	F	0.0885	355.6	2.24	3602	13.0	328.6	2.07	2100	15.2	261.1	1.64	1362	16.5	184.4	1.16
155	164	3779	13.1	12.5	12.0	17.4	19.9	1.89	3.6	9.3	0.28	2.97	51.3	106	1.63	0.093	0.082	14.1	0.64	5459	26309	393	112	D	F	0.0940	355.3	2.17	3421	13.3	329.9	2.01	2086	15.4	268.4	1.64	1400	16.6	195.5	1.19
160	169	3562	13.5	12.8	12.1	17.6	20.1	1.93	3.7	9.4	0.28	3.09	50.7	105	1.68	0.095	0.083	13.8	0.63	5356	26309	382	110	D	F	0.0996	354.7	2.10	3251	13.5	330.9	1.96	2063	15.6	274.7	1.63	1427	16.8	205.5	1.22
165	174	3364	13.8	13.1	12.2	17.7	20.2	1.96	3.7	9.5	0.28	3.20	50.1	104	1.72	0.097	0.085	13.5	0.62	5257	26309	372	108	D	F	0.1052	353.9	2.04	3096	13.8	331.4	1.91	2035	15.8	280.0	1.61	1448	17.0	214.5	1.23
170	179	3183	14.1	13.4	12.3	17.9	20.4	1.99	3.8	9.6	0.28	3.31	49.5	103	1.77	0.099	0.087	13.2	0.61	5163	26309	362	105	D	F	0.1109	352.9	1.97	2947	14.0	331.6	1.85	1999	16.0	284.5	1.59	1458	17.1	222.6	1.24
175	184	3017	14.4	13.7	12.4	18.0	20.6	2.03	3.9	9.6	0.28	3.42	48.9	102	1.82	0.101	0.089	12.9	0.60	5074	26309	353	103	D	F	0.1166	351.8	1.91	2812	14.3	331.5	1.80	1963	16.2	288.2	1.57	1463	17.3	229.8	1.25
180	189	2864	14.7	14.0	12.5	18.1	20.7	2.06	4.0	9.7	0.29	3.54	48.4	101	1.87	0.103	0.090	12.6	0.59	4989	26309	345	101	D	F	0.1224	350.5	1.86	2685	14.6	331.2	1.75	1923	16.4	291.2	1.54	1463	17.5	236.2	1.25

Table A46. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
		SI = 13 m Initial Density = 800 stems/ha																																						
5	13	798	2.3	2.2	2.3	2.6	2.6	0.76	1.9	0.3	0.87	0.46	0.3	120	3.54	1.381	1.344	0.2	0.00	131	708	10	4	V	M	0.0005	0.4	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	795	4.3	4.0	3.5	3.9	4.1	0.93	2.8	0.7	0.79	0.70	1.2	99	3.55	0.902	0.874	0.6	0.01	227	708	20	6	A	M	0.0028	2.2	0.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	789	6.1	5.7	4.7	5.3	5.5	1.11	3.6	1.4	0.71	1.01	2.3	95	3.56	0.674	0.651	0.9	0.02	343	708	30	8	A	M	0.0077	6.1	0.26	110	9.2	1.7	0.07	2	12.3	0.1	0.00	0	0.0	0.0	0.00
20	28	781	7.7	7.2	5.9	6.6	6.8	1.28	4.1	2.1	0.65	1.35	3.6	94	3.58	0.545	0.526	1.3	0.04	472	708	40	11	A	M	0.0154	12.0	0.43	327	9.7	7.2	0.26	26	13.2	1.2	0.04	5	14.7	0.2	0.01
25	33	772	9.1	8.6	7.0	7.8	8.1	1.44	4.6	2.9	0.60	1.71	5.0	94	3.60	0.463	0.446	1.7	0.05	607	708	49	13	A	M	0.0258	19.9	0.60	483	10.4	15.1	0.46	98	13.7	5.5	0.17	32	15.2	2.0	0.06
30	38	761	10.4	9.9	8.0	8.9	9.2	1.58	4.9	3.7	0.56	2.08	6.5	94	3.62	0.408	0.393	2.0	0.07	743	708	58	16	A	M	0.0385	29.3	0.77	573	11.3	24.6	0.64	194	14.2	13.4	0.35	91	15.6	6.8	0.18
35	43	749	11.6	11.0	9.0	9.9	10.3	1.71	5.2	4.4	0.53	2.45	7.9	93	3.65	0.368	0.355	2.3	0.08	877	708	66	18	A	M	0.0531	39.8	0.92	622	12.1	35.2	0.82	287	14.8	23.8	0.55	165	16.1	14.7	0.34
40	48	736	12.7	12.1	9.9	10.9	11.3	1.84	5.4	5.1	0.51	2.82	9.4	93	3.69	0.339	0.327	2.6	0.10	1006	708	73	21	A	M	0.0694	51.1	1.06	648	13.0	46.5	0.97	365	15.3	35.6	0.74	240	16.5	25.0	0.52
45	53	722	13.7	13.1	10.8	11.8	12.2	1.95	5.6	5.8	0.48	3.19	10.7	92	3.72	0.317	0.306	2.9	0.12	1129	708	79	23	A	M	0.0871	62.9	1.18	659	13.8	58.3	1.10	424	15.9	48.0	0.90	306	17.0	36.6	0.69
50	58	708	14.7	14.0	11.6	12.6	13.0	2.06	5.8	6.4	0.47	3.55	12.0	92	3.76	0.299	0.289	3.1	0.13	1245	708	85	25	A	M	0.1056	74.8	1.29	661	14.6	70.2	1.21	468	16.5	60.7	1.04	361	17.5	49.1	0.84
55	63	693	15.6	14.9	12.3	13.3	13.8	2.16	5.9	7.0	0.45	3.90	13.2	91	3.80	0.286	0.276	3.3	0.15	1354	708	90	27	A	M	0.1251	86.7	1.37	658	15.4	82.0	1.30	499	17.1	73.2	1.16	404	18.0	61.7	0.98
60	68	678	16.4	15.7	13.0	14.0	14.4	2.26	6.0	7.5	0.44	4.25	14.3	91	3.84	0.275	0.266	3.5	0.16	1455	708	95	29	A	M	0.1450	98.3	1.44	651	16.1	93.6	1.37	520	17.6	85.4	1.25	436	18.5	74.1	1.09
65	73	662	17.2	16.5	13.6	14.6	15.1	2.35	6.2	8.0	0.43	4.58	15.4	90	3.89	0.266	0.258	3.7	0.17	1548	708	99	30	B	M	0.1653	109.4	1.50	641	16.8	104.7	1.43	533	18.2	97.0	1.33	460	19.0	86.2	1.18
70	78	647	17.9	17.2	14.2	15.2	15.7	2.43	6.3	8.4	0.42	4.91	16.4	90	3.93	0.259	0.251	3.9	0.18	1635	708	102	32	B	M	0.1858	120.2	1.54	631	17.5	115.5	1.48	540	18.7	108.1	1.38	476	19.5	97.7	1.25
75	83	632	18.6	17.9	14.7	15.7	16.2	2.51	6.4	8.8	0.41	5.24	17.3	89	3.98	0.253	0.245	4.0	0.20	1714	708	105	33	B	M	0.2065	130.5	1.57	619	18.1	125.7	1.51	543	19.3	118.7	1.43	488	20.0	108.9	1.31
80	88	617	19.3	18.5	15.2	16.2	16.7	2.59	6.5	9.2	0.41	5.55	18.1	88	4.03	0.248	0.241	4.1	0.21	1787	708	108	34	B	M	0.2271	140.1	1.59	607	18.8	135.3	1.53	542	19.8	128.6	1.46	494	20.5	119.2	1.35
85	93	602	19.9	19.2	15.7	16.7	17.2	2.66	6.6	9.5	0.40	5.86	18.8	88	4.08	0.244	0.237	4.2	0.22	1854	708	110	35	B	M	0.2477	149.1	1.60	594	19.4	144.3	1.55	539	20.3	137.8	1.48	497	20.9	128.9	1.38
90	98	588	20.6	19.8	16.1	17.1	17.6	2.73	6.6	9.8	0.40	6.17	19.5	87	4.12	0.241	0.234	4.3	0.23	1916	708	112	36	B	M	0.2682	157.7	1.61	581	19.9	152.8	1.56	535	20.8	146.6	1.49	498	21.4	138.1	1.41
95	103	575	21.1	20.4	16.6	17.5	18.0	2.79	6.7	10.1	0.39	6.46	20.2	86	4.17	0.238	0.232	4.4	0.23	1972	708	114	37	B	M	0.2885	165.9	1.61	569	20.5	161.0	1.56	529	21.3	154.8	1.50	497	21.8	146.8	1.42
100	108	561	21.7	20.9	16.9	17.9	18.4	2.86	6.8	10.3	0.39	6.75	20.7	86	4.22	0.236	0.230	4.5	0.24	2024	708	115	38	B	M	0.3086	173.1	1.60	556	21.0	168.2	1.56	522	21.7	162.2	1.50	493	22.3	154.5	1.43
105	113	548	22.2	21.4	17.3	18.2	18.7	2.92	6.9	10.6	0.39	7.03	21.3	85	4.27	0.234	0.228	4.5	0.25	2072	708	116	39	B	M	0.3285	180.0	1.59	544	21.5	175.0	1.55	514	22.2	169.1	1.49	489	22.7	161.8	1.43
110	118	536	22.7	21.9	17.7	18.6	19.0	2.97	6.9	10.8	0.39	7.31	21.8	84	4.32	0.233	0.227	4.6	0.26	2116	708	117	39	B	M	0.3479	186.5	1.58	533	22.0	181.5	1.54	507	22.6	175.7	1.49	484	23.1	168.7	1.43
115	123	524	23.2	22.4	18.0	18.9	19.4	3.03	7.0	11.0	0.39	7.58	22.2	84	4.37	0.231	0.226	4.6	0.26	2157	708	118	40	B	M	0.3672	192.4	1.56	521	22.5	187.4	1.52	498	23.1	181.6	1.47	479	23.5	175.0	1.42
120	128	513	23.7	22.9	18.3	19.2	19.6	3.08	7.1	11.1	0.38	7.85	22.7	83	4.42	0.230	0.225	4.7	0.27	2195	708	119	40	B	M	0.3860	198.0	1.54	511	23.0	193.0	1.51	490	23.5	187.2	1.46	473	23.9	180.9	1.41
125	133	502	24.2	23.4	18.6	19.4	19.9	3.13	7.1	11.3	0.38	8.11	23.0	82	4.46	0.230	0.224	4.7	0.27	2231	708	120	41	B	M	0.4044	203.0	1.52	500	23.4	198.0	1.49	482	23.9	192.3	1.44	466	24.3	186.2	1.40
130	138	492	24.6	23.8	18.8	19.7	20.2	3.18	7.2	11.4	0.38	8.37	23.4	81	4.51	0.229	0.224	4.7	0.28	2264	708	120	41	B	M	0.4226	207.9	1.50	490	23.9	202.9	1.47	474	24.3	197.2	1.43	460	24.7	191.4	1.39
135	143	482	25.0	24.2	19.1	19.9	20.4	3.23	7.2	11.5	0.38	8.62	23.8	81	4.55	0.228	0.223	4.7	0.28	2295	708	121	42	B	M	0.4402	212.2	1.48	481	24.3	207.2	1.45	466	24.7	201.5	1.41	454	25.0	196.0	1.37
140	148	473	25.5	24.6	19.3	20.2	20.6	3.28	7.3	11.7	0.38	8.86	24.1	80	4.60	0.228	0.223	4.8	0.29	2324	708	121	42	B	M	0.4575	216.4	1.46	472	24.7	211.4	1.43	459	25.1	205.7	1.39	447	25.4	200.3	1.35
145	153	464	25.9	25.0	19.6	20.4	20.8	3.32	7.3	11.7	0.38	9.10	24.4	79	4.64	0.228	0.223	4.8	0.29	2352	708	121	42	B	M	0.4744	220.1	1.44	463	25.1	215.1	1.40	452	25.4	209.5	1.37	441	25.7	204.3	1.33
150	158	455	26.3	25.4	19.8	20.6	21.0	3.37	7.4	11.8	0.38	9.34	24.6	79	4.69	0.228	0.223	4.8	0.29	2378	708	121	43	B	M	0.4910	223.4	1.41	454	25.5	218.3	1.38	444	25.8	212.7	1.34	434	26.1	207.7	1.31
155	163	447	26.6	25.8	20.0	20.8	21.2	3.41	7.4	11.9	0.38	9.57	24.9	78	4.73	0.228	0.223	4.8	0.30	2403	708	122	43	B	M	0.5069	226.6	1.39	446	25.8	221.5	1.36	437	26.2	215.9	1.32	428	26.4	211.1	1.29
160	168	439	27.0	26.2	20.2	21.0	21.4	3.45	7.5	12.0	0.38	9.80	25.1	77	4.77	0.228	0.223	4.8	0.30	2426	708	122	43	B	M	0.5226	229.4	1.36	438	26.2	224.3	1.33	430	26.5	218.8	1.30	422	26.8	214.1	1.27
165	173	432	27.4	26.5	20.4	21.1	21.6	3.49	7.5	12.0	0.38	10.02	25.4	77	4.81	0.228	0.223	4.9	0.30	2449	708	122	43	B	M	0.5380	232.4	1.34	432	26.5	227.3	1.31	424	26.8	221.7	1.28	416	27.1	217.2	1.25
170	178	425	27.7	26.9	20.5	21.3	21.7	3.53	7.5	12.1	0.38	10.24	25.6	76	4.85	0.228	0.223	4.9	0.31	2471	708	122	44	B	M	0.5527	234.9	1.32	425	26.9	229.8	1.29	417	27.2	224.2	1.26	411	27.4	219.9	1.23
175	183	418	28.1	27.2	20.7	21.5	21.9	3.57	7.6	12.1	0.38	10.46	25.8	75	4.89	0.228	0.223	4.9	0.31	2492	708	122	44	B	M	0.5672	237.1	1.29	418	27.2	232.0	1.27	411	27.5	226.3	1.24	405	27.7	222.2	1.21
180	188	412	28.4	27.5	20.9	21.6	22.1	3.60	7.6	12.2	0.38	10.67	26.1	75	4.93	0.228	0.223	4.9	0.31	2513	708	122	44	B	M	0.5813	239.5	1.27	412	27.5	234.3	1.25	406	27.8	228.7	1.22	400	28.0	224.6	1.19
		SI = 13 m Initial Density = 1000 stems/ha																																						
5	13	997	2.2	2.0	2.3	2.6	2.6	0.75	1.9	0.3	0.86	0.44	0.4	126	3.17	1.237	1.202	0.3	0.00	160	848	12	4	V	M	0.0004	0.4	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	991	4.1	3.8	3.5	3.9	4.1	0.91	2.7	0.8	0.77	0.67	1.3	102	3.18	0.809	0.783	0.6	0.01	269	848	23	7	A	M	0.0025	2.5	0.14	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	981	5.8	5.4	4.7	5.3	5.5	1.08	3.4	1.4	0.70	0.95	2.6	98	3.19	0.606	0.584	1.1	0.03	401	848	35	9	A	M	0.0068	6.7	0.29	101	9.1	1.5	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	968	7.3	6.9	5.8	6.6	6.8	1.24	4.0	2.2	0.64	1.27	4.1	97	3.21	0.490	0.472	1.5	0.04	546	848	46	12	A	M	0.0137	13.3	0.47	354	9.5	7.2	0.26	19	13.1	0.8	0.03	3	14.5	0.1	0.00
25	33	952	8.7	8.2	6.9	7.8	8.1	1.39	4.4	3.0	0.59	1.60	5.6	96	3.24	0.418	0.402	1.9	0.06	696	848	57	15	A	M	0.0231	22.0	0.66	553	10.2	15.9	0.48	87	13.5	4.8	0.14	24	15.1	1.4	0.04
30	38	934	9.9	9.4	8.0	8.9	9.2	1.53	4.7	3.7	0.55	1.94	7.3	96	3.27	0.369	0.355	2.3	0.08	847	848	67	18	A	M	0.0346	32.3	0.85	672	10.9	26.4	0.69	192	14.0	12.7	0.33	80	15.4	5.8	0.15
35	43	915	11.1	10.5	8.9	9.9	10.3	1.66	4.9	4.5	0.52	2.29	8.9	96	3.31	0.334	0.321	2.7	0.09	993	848	76	21	A	M	0.0480	43.9	1.02	738	11.7	38.1	0.88	302	14.5	23.8	0.55	159	15.8	13.6	0.32
40	48	893	12.2	11.6	9.8	10.9	11.3	1.78	5.2	5.2	0.49	2.64	10.4	95	3.35	0.308	0.297	3.0	0.11	1133	848	84	24	A	M	0.0629	56.2	1.17	770	12.5	50.5	1.05	396	15.0	36.6	0.76	244	16.3	24.2	0.50
45	53	871	13.2	12.5	10.7	11.7	12.2	1.89	5.3	5.9	0.47	2.98	11.9	95	3.39	0.289	0.278	3.3	0.13	1265	848	91	26	A	M	0.0791	68.9	1.30	783	13.3	63.4	1.19	471	15.6	50.4	0.95	323	16.7	36.7	0.69
50	58	848	14.1	13.4	11.5	12.5	13.0	2.00	5.5	6.5	0.45	3.32	13.3	94	3.43	0.274	0.264	3.5	0.15	1388	848	97	28	A	M	0.0963	81.7	1.40	784	14.1	76.3	1.31	526	16.1	64.2	1.10	390	17.2	50.2	0.86
55	63	824	15.0	14.3	12.2	13.3	13.8	2.10	5.6	7.0	0.44	3.66	14.5	93	3.48	0.263	0.253	3.8	0.16	1501	848	102	30	B	M	0.1144	94.3	1.49	776	14.8	88.9	1.41	565	16.6	77.9	1.23	442	17.7	63.8	1.01
60	68	801	15.8	15.1	12.9	13.9	14.4	2.19	5.8	7.6	0.43	3.99	15.7	93	3.53	0.253	0.245	4.0	0.18	1606	848	107	32	B	M	0.1332	106.7	1.57	765	15.6	101.3	1.49	591	17.2	91.1	1.34	483	18.1	77.4	1.14
65	73	777	16.6	15.9	13.5	14.6	15.1	2.28	5.9	8.0	0.42	4.32	16.8	92	3.59	0.246	0.238	4.1	0.19	1701	848	111	34	B	M	0.1524	118.4	1.62	749	16.3	113.0	1.54	606	17.7	103.6	1.42	512	18.6	90.5	1.24
70	78	754	17.3	16.6	14.1	15.2	15.7	2.36	6.0	8.5	0.41	4.64	17.8	91	3.64	0.240	0.232	4.3	0.20	1787	848	114	35	B	M	0.1720	129.7	1.66	732	16.9	124.3	1.59	613	18.3	115.5	1.48	532	19.1	103.0	1.32
75	83	732	18.0	17.3	14.6	15.7	16.2	2.44	6.1	8.9	0.40	4.96	18.7	91	3.70	0.236	0.228	4.4	0.21	1865	848	117	36	B	M	0.1918	140.4	1.69	715	17.6	135.0	1.62	616	18.8	126.7	1.52	545	19.5	114.9	1.38
80	88	710	18.7	18.0	15.1	16.2	16.7	2.52	6.2	9.2	0.40	5.27	19.5	90	3.75	0.232	0.225	4.5	0.22	1936	848	119	37	B	M	0.2117	150.3	1.70	696	18.2	144.9	1.64	613	19.3	137.1	1.56	552	20.0	125.9	1.43
85	93	689	19.4	18.6	15.6	16.6	17.2	2.59	6.3	9.6	0.39	5.58	20.3	89	3.81	0.229	0.222	4.6	0.23	2000	848	121	38	B	M	0.2316	159.6	1.71	678	18.8	154.2	1.66	608	19.8	146.8	1.58	555	20.5	136.2	1.46
90	98	669	20.0	19.2	16.0	17.1	17.6	2.66	6.4	9.9	0.39	5.88	21.0	89	3.87	0.226	0.220	4.7	0.24	2058	848	123	39	B	M	0.2517	168.4	1.72	660	19.4	163.0	1.66	601	20.3	155.8	1.59	555	20.9	145.8	1.49
95	103	649	20.6	19.8	16.4	17.5	18.0	2.73	6.5	10.2	0.38	6.17	21.5	88	3.93	0.225	0.218	4.8	0.25	2111	848	124	40	B	M	0.2715	176.2	1.71	642	19.9	170.8	1.66	591	20.8	163.9	1.59	551	21.4	154.5	1.50
100	108	630	21.1	20.4	16.8	17.9	18.4	2.79	6.6	10.4	0.38	6.46	22.1	87	3.98	0.223	0.217	4.8	0.26	2159	848	125	41	B	M	0.2913	183.5	1.70	624	20.5	178.1	1.65	581	21.3	171.4	1.58	546	21.8	162.5	1.50
105	113	613	21.7	20.9	17.2	18.2	18.7	2.85	6.6	10.6	0.38	6.74	22.6	86	4.04	0.222	0.216	4.9	0.27	2202	848	126	41	B	M	0.3108	190.5	1.68	608	21.0	185.1	1.64	571	21.7	178.6	1.58	540	22.2	170.2	1.50
110	118	596	22.2	21.4	17.5	18.5	19.0	2.91	6.7	10.8	0.38	7.02	23.1	85	4.10	0.221	0.215	4.9	0.27	2241	848	126	42	B	M	0.3302	196.8	1.67	592	21.5	191.4	1.62	560	22.2	185.0	1.57	532	22.6	177.0	1.50
115	123	580	22.7	21.9	17.9	18.8	19.4	2.97	6.8	11.0	0.38	7.29	23.5	85	4.15	0.220	0.215	4.9	0.28	2277	848	127	42	B	M	0.3491	202.5	1.64	577	22.0	197.2	1.60	548	22.6	190.8	1.55	524	23.1	183.3	1.49
120	128	565	23.2	22.4	18.2	19.1	19.6	3.03	6.9	11.2	0.38	7.56	23.9	84	4.21	0.220	0.214	5.0	0.28	2311	848	127	43	B	M	0.3680	207.9	1.62	562	22.5	202.5	1.58	537	23.1	196.3	1.53	516	23.5	189.1	1.48
125	133	550	23.7	22.9	18.4	19.4	19.9	3.08	6.9	11.3	0.37	7.83	24.2	83	4.26	0.220	0.214	5.0	0.29	2341	848	127	43	B	M	0.3864	212.5	1.60	548	22.9	207.2	1.56	526	23.5	201.0	1.51	507	23.8	194.2	1.46
130	138	537	24.1	23.3	18.7	19.7	20.2	3.13	7.0	11.5	0.37	8.08	24.5	82	4.32	0.220	0.214	5.0	0.29	2370	848	128	43	B	M	0.4045	217.2	1.57	535	23.4	211.9	1.53	516	23.9	205.8	1.49	499	24.2	199.3	1.44
135	143	524	24.6	23.8	19.0	19.9	20.4	3.18	7.0	11.6	0.37	8.34	24.8	82	4.37	0.220	0.214	5.0	0.30	2396	848	128	44	B	M	0.4223	221.3	1.55	522	23.8	215.9	1.51	505	24.3	209.9	1.47	490	24.6	203.7	1.42
140	148	512	25.0	24.2	19.2	20.1	20.6	3.23	7.1	11.7	0.37	8.59	25.1	81	4.42	0.220	0.214	5.0	0.30	2421	848	128	44	B	M	0.4396	225.1	1.52	511	24.2	219.8	1.48	495	24.7	213.8	1.44	482	25.0	207.9	1.40
145	153	500	25.4	24.6	19.4	20.3	20.8	3.27	7.2	11.8	0.37	8.83	25.4	80	4.47	0.220	0.215	5.0	0.30	2444	848	128	44	B	M	0.4566	228.3	1.49	499	24.6	223.0	1.46	485	25.0	217.1	1.42	473	25.3	211.4	1.38
150	158	489	25.8	25.0	19.7	20.6	21.0	3.32	7.2	11.9	0.37	9.07	25.6	80	4.52	0.220	0.215	5.0	0.31	2466	848	127	44	B	M	0.4734	231.5	1.46	488	25.0	226.1	1.43	476	25.4	220.2	1.39	465	25.7	214.8	1.36
155	163	479	26.2	25.4	19.9	20.7	21.2	3.36	7.3	12.0	0.37	9.31	25.8	79	4.57	0.220	0.215	5.0	0.31	2487	848	127	45	B	M	0.4896	234.5	1.44	478	25.4	229.2	1.40	467	25.8	223.3	1.37	457	26.0	218.0	1.34
160	168	469	26.6	25.7	20.1	20.9	21.4	3.40	7.3	12.0	0.37	9.54	26.0	78	4.62	0.221	0.216	5.0	0.31	2506	848	127	45	B	M	0.5053	237.0	1.41	468	25.8	231.7	1.38	458	26.1	225.8	1.34	449	26.4	220.8	1.31
165	173	460	27.0	26.1	20.2	21.1	21.6	3.44	7.4	12.1	0.37	9.77	26.2	78	4.66	0.221	0.216	5.1	0.31	2526	848	127	45	B	M	0.5209	239.6	1.38	459	26.2	234.3	1.35	450	26.5	228.4	1.32	442	26.7	223.6	1.29
170	178	451	27.3	26.5	20.4	21.3	21.7	3.48	7.4	12.1	0.38	9.99	26.4	77	4.71	0.221	0.217	5.1	0.32	2544	848	127	45	B	M	0.5359	241.7	1.36	451	26.5	236.4	1.33	442	26.8	230.5	1.29	435	27.0	225.9	1.27
175	183	443	27.7	26.8	20.6	21.4	21.9	3.52	7.5	12.2	0.38	10.21	26.6	76	4.75	0.222	0.217	5.1	0.32	2562	848	127	45	B	M	0.5506	243.9	1.33	443	26.8	238.6	1.30	435	27.1	232.8	1.27	428	27.3	228.2	1.25
180	188	435	28.0	27.1	20.8	21.6	22.1	3.56	7.5	12.2	0.38	10.42	26.8	75	4.79	0.222	0.217	5.1	0.32	2579	848	127	45	B	M	0.5648	245.7	1.31	435	27.1	240.4	1.28	428	27.4	234.6	1.25	421	27.7	230.2	1.22

Table A47. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
		SI = 13 m Initial Density = 1600 stems/ha																																						
5	13	1593	1.9	1.8	2.2	2.6	2.6	0.73	1.8	0.3	0.84	0.42	0.5	138	2.51	0.981	0.951	0.3	0.00	244	1224	17	7	A	M	0.0003	0.5	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	1576	3.7	3.4	3.4	3.9	4.1	0.87	2.5	0.8	0.74	0.61	1.7	110	2.52	0.644	0.621	0.9	0.02	387	1224	32	10	A	M	0.0019	3.0	0.17	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	1549	5.2	4.9	4.6	5.3	5.5	1.02	3.1	1.5	0.67	0.84	3.3	105	2.54	0.484	0.465	1.4	0.03	558	1224	48	13	A	M	0.0053	8.2	0.35	71	8.8	1.0	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	1516	6.6	6.2	5.7	6.5	6.8	1.16	3.6	2.3	0.60	1.11	5.2	103	2.57	0.393	0.377	2.0	0.05	742	1224	63	17	A	M	0.0108	16.3	0.58	387	9.1	6.9	0.25	7	12.9	0.3	0.01	0	0.0	0.0	0.00
25	33	1475	7.9	7.4	6.8	7.7	8.1	1.30	3.9	3.1	0.55	1.39	7.1	102	2.60	0.337	0.323	2.5	0.08	929	1224	77	21	A	M	0.0182	26.9	0.81	704	9.6	17.2	0.52	57	13.2	2.9	0.09	10	14.8	0.6	0.02
30	38	1430	9.0	8.5	7.8	8.8	9.2	1.43	4.2	3.9	0.51	1.69	9.1	101	2.64	0.299	0.287	3.0	0.10	1112	1224	90	24	A	M	0.0275	39.3	1.03	912	10.3	30.0	0.79	167	13.6	10.3	0.27	51	15.1	3.5	0.09
35	43	1381	10.1	9.6	8.8	9.9	10.3	1.55	4.4	4.6	0.48	1.99	11.1	101	2.69	0.273	0.261	3.5	0.12	1287	1224	101	27	A	M	0.0385	53.2	1.23	1029	11.0	44.2	1.02	306	14.0	22.1	0.51	129	15.4	10.2	0.24
40	48	1329	11.1	10.5	9.7	10.8	11.3	1.66	4.6	5.3	0.46	2.29	12.9	100	2.74	0.254	0.243	3.9	0.14	1449	1224	110	30	B	M	0.0509	67.7	1.41	1085	11.7	59.1	1.23	442	14.4	37.0	0.77	231	15.8	20.9	0.43
45	53	1277	12.1	11.5	10.5	11.7	12.2	1.77	4.8	6.0	0.44	2.60	14.6	99	2.80	0.240	0.230	4.2	0.16	1597	1224	118	33	B	M	0.0646	82.5	1.55	1104	12.4	74.3	1.40	557	14.9	53.4	1.00	336	16.2	34.6	0.65
50	58	1224	13.0	12.4	11.3	12.5	13.0	1.87	4.9	6.6	0.42	2.91	16.2	98	2.86	0.229	0.220	4.5	0.18	1731	1224	125	36	B	M	0.0794	97.2	1.67	1099	13.1	89.3	1.54	645	15.4	70.1	1.21	432	16.6	50.0	0.86
55	63	1172	13.8	13.2	12.0	13.2	13.8	1.97	5.1	7.2	0.41	3.22	17.6	98	2.92	0.221	0.212	4.7	0.20	1851	1224	130	38	B	M	0.0951	111.5	1.77	1081	13.8	103.9	1.65	707	15.9	86.4	1.37	511	17.0	66.1	1.05
60	68	1121	14.6	14.0	12.6	13.9	14.4	2.06	5.2	7.7	0.40	3.53	18.8	97	2.99	0.215	0.207	4.9	0.22	1957	1224	135	40	B	M	0.1117	125.2	1.84	1053	14.5	117.7	1.73	747	16.4	102.0	1.50	573	17.4	82.1	1.20
65	73	1072	15.4	14.7	13.3	14.5	15.1	2.15	5.4	8.1	0.39	3.83	20.0	96	3.05	0.211	0.202	5.1	0.23	2051	1224	138	41	B	M	0.1288	138.1	1.89	1021	15.2	130.9	1.79	771	16.9	116.6	1.59	618	17.8	97.5	1.33
70	78	1025	16.1	15.5	13.8	15.1	15.7	2.23	5.5	8.6	0.38	4.14	21.0	95	3.12	0.207	0.199	5.2	0.24	2133	1224	141	42	B	M	0.1465	150.2	1.92	986	15.9	143.1	1.83	781	17.4	130.2	1.67	649	18.3	112.1	1.43
75	83	980	16.9	16.2	14.4	15.6	16.2	2.31	5.6	9.0	0.38	4.44	21.9	94	3.19	0.205	0.197	5.3	0.25	2204	1224	143	43	B	M	0.1646	161.3	1.94	950	16.5	154.4	1.86	782	17.9	142.6	1.71	668	18.7	125.6	1.51
80	88	938	17.5	16.8	14.9	16.1	16.7	2.39	5.7	9.3	0.37	4.74	22.7	93	3.27	0.203	0.195	5.4	0.26	2267	1224	144	44	B	M	0.1830	171.7	1.95	914	17.1	164.9	1.87	775	18.4	154.0	1.75	678	19.2	138.2	1.57
85	93	898	18.2	17.5	15.3	16.6	17.2	2.46	5.8	9.7	0.37	5.03	23.3	92	3.34	0.201	0.194	5.5	0.27	2321	1224	145	45	B	M	0.2017	181.1	1.94	879	17.7	174.4	1.87	764	18.9	164.3	1.76	680	19.6	149.5	1.60
90	98	860	18.8	18.1	15.8	17.0	17.6	2.53	5.9	10.0	0.37	5.32	23.9	92	3.41	0.201	0.194	5.5	0.28	2368	1224	145	46	B	M	0.2206	189.7	1.93	845	18.3	183.1	1.87	749	19.4	173.6	1.77	677	20.0	159.8	1.63
95	103	825	19.4	18.7	16.2	17.4	18.0	2.60	6.0	10.2	0.37	5.61	24.5	91	3.48	0.200	0.193	5.5	0.29	2409	1224	146	46	B	M	0.2394	197.5	1.91	813	18.9	191.0	1.85	732	19.8	182.1	1.77	670	20.5	169.2	1.64
100	108	792	20.0	19.3	16.6	17.8	18.4	2.67	6.1	10.5	0.36	5.90	24.9	90	3.55	0.200	0.193	5.6	0.29	2445	1224	146	47	B	M	0.2583	204.6	1.89	782	19.4	198.2	1.83	714	20.3	139.7	1.75	661	20.9	177.8	1.64
105	113	762	20.6	19.8	16.9	18.1	18.7	2.73	6.2	10.7	0.36	6.18	25.3	89	3.62	0.200	0.193	5.6	0.30	2476	1224	146	47	B	M	0.2772	211.2	1.87	754	20.0	204.9	1.81	696	20.8	196.7	1.74	650	21.3	185.6	1.64
110	118	733	21.1	20.4	17.3	18.4	19.0	2.79	6.3	10.9	0.36	6.46	25.7	88	3.69	0.200	0.194	5.6	0.30	2504	1224	145	47	B	M	0.2959	216.9	1.84	726	20.5	210.7	1.78	677	21.2	202.8	1.72	637	21.8	192.4	1.63
115	123	707	21.7	20.9	17.6	18.7	19.4	2.85	6.4	11.1	0.36	6.73	26.0	87	3.76	0.201	0.194	5.6	0.31	2528	1224	145	48	B	M	0.3146	222.4	1.81	702	21.0	216.2	1.76	659	21.7	208.6	1.69	624	22.2	198.9	1.62
120	128	682	22.2	21.4	17.9	19.0	19.6	2.91	6.5	11.3	0.36	7.00	26.3	86	3.83	0.201	0.195	5.6	0.31	2550	1224	144	48	B	M	0.3330	227.1	1.77	677	21.5	221.0	1.72	641	22.1	213.6	1.67	610	22.6	204.4	1.59
125	133	659	22.7	21.9	18.2	19.3	19.9	2.97	6.6	11.4	0.36	7.27	26.6	85	3.90	0.202	0.196	5.6	0.32	2569	1224	144	48	B	M	0.3511	231.4	1.74	655	22.0	225.4	1.69	624	22.6	218.2	1.64	596	23.0	209.5	1.57
130	138	637	23.1	22.3	18.4	19.6	20.2	3.02	6.6	11.5	0.36	7.53	26.8	85	3.96	0.203	0.197	5.6	0.32	2586	1224	143	48	B	M	0.3692	235.2	1.70	634	22.4	229.1	1.66	606	23.0	222.1	1.61	582	23.4	214.0	1.55
135	143	617	23.6	22.8	18.7	19.8	20.4	3.07	6.7	11.7	0.36	7.79	27.0	84	4.03	0.203	0.197	5.6	0.32	2602	1224	142	48	B	M	0.3869	238.7	1.67	614	22.9	232.7	1.63	590	23.4	225.8	1.58	569	23.8	218.2	1.52
140	148	598	24.0	23.2	18.9	20.0	20.6	3.12	6.8	11.8	0.36	8.04	27.2	83	4.09	0.204	0.198	5.5	0.32	2617	1224	141	48	B	M	0.4042	241.7	1.63	596	23.3	235.8	1.59	574	23.8	229.0	1.55	556	24.2	221.8	1.50
145	153	581	24.5	23.7	19.2	20.2	20.8	3.17	6.8	11.9	0.36	8.29	27.3	82	4.15	0.205	0.199	5.5	0.33	2631	1224	141	48	B	M	0.4213	244.8	1.60	579	23.7	238.9	1.56	560	24.2	232.2	1.52	543	24.5	225.3	1.47
150	158	564	24.9	24.1	19.4	20.5	21.0	3.22	6.9	11.9	0.36	8.53	27.5	81	4.21	0.206	0.200	5.5	0.33	2643	1224	140	48	B	M	0.4379	247.0	1.56	562	24.2	241.2	1.53	546	24.6	234.6	1.48	531	24.9	228.1	1.44
155	163	549	25.3	24.5	19.6	20.6	21.2	3.26	7.0	12.0	0.36	8.77	27.6	81	4.27	0.207	0.201	5.5	0.33	2655	1224	139	48	B	M	0.4545	249.5	1.53	548	24.5	243.6	1.49	533	24.9	237.2	1.45	519	25.3	230.9	1.42
160	168	535	25.7	24.9	19.8	20.8	21.4	3.31	7.0	12.1	0.36	9.01	27.8	80	4.32	0.208	0.202	5.5	0.33	2667	1224	139	48	B	M	0.4705	251.7	1.50	534	24.9	245.9	1.46	520	25.3	239.4	1.42	508	25.6	233.5	1.39
165	173	522	26.1	25.3	20.0	21.0	21.6	3.35	7.1	12.1	0.36	9.24	27.9	79	4.38	0.208	0.203	5.5	0.33	2678	1224	138	48	B	M	0.4862	253.8	1.47	521	25.3	248.0	1.43	509	25.7	241.6	1.40	498	25.9	235.9	1.36
170	178	509	26.5	25.6	20.1	21.2	21.7	3.39	7.1	12.2	0.37	9.47	28.0	78	4.43	0.209	0.204	5.4	0.34	2689	1224	137	48	B	M	0.5014	255.2	1.43	508	25.7	249.5	1.40	497	26.0	243.1	1.36	487	26.3	237.7	1.33
175	183	497	26.8	26.0	20.3	21.3	21.9	3.43	7.2	12.2	0.37	9.70	28.1	78	4.49	0.210	0.205	5.4	0.34	2700	1224	137	48	B	M	0.5163	256.6	1.40	496	26.0	250.9	1.37	486	26.4	244.6	1.34	477	26.6	239.3	1.31
180	188	487	27.2	26.4	20.5	21.5	22.1	3.47	7.2	12.3	0.37	9.92	28.3	77	4.53	0.211	0.205	5.4	0.34	2710	1224	136	48	B	M	0.5310	258.6	1.37	486	26.4	252.9	1.34	477	26.7	246.6	1.31	469	26.9	241.5	1.28
		SI = 13 m Initial Density = 2000 stems/ha																																						
5	13	1989	1.8	1.7	2.2	2.6	2.6	0.72	1.7	0.3	0.83	0.41	0.5	145	2.24	0.879	0.851	0.4	0.01	298	1450	20	8	A	M	0.0003	0.6	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	1963	3.5	3.2	3.4	3.9	4.1	0.86	2.4	0.9	0.73	0.58	1.9	114	2.26	0.578	0.556	1.0	0.02	461	1450	38	11	A	M	0.0017	3.3	0.18	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	1923	4.9	4.6	4.5	5.2	5.5	0.99	3.0	1.5	0.65	0.80	3.7	108	2.28	0.435	0.417	1.7	0.04	653	1450	56	15	A	M	0.0047	9.1	0.39	55	8.7	0.7	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	1872	6.3	5.9	5.7	6.5	6.8	1.13	3.4	2.3	0.58	1.04	5.8	106	2.31	0.355	0.339	2.3	0.06	858	1450	73	20	A	M	0.0096	17.9	0.64	386	8.9	6.5	0.23	4	12.7	0.2	0.01	0	0.0	0.0	0.00
25	33	1812	7.5	7.0	6.7	7.7	8.1	1.26	3.7	3.1	0.54	1.31	8.0	105	2.35	0.305	0.291	2.9	0.09	1065	1450	89	24	A	M	0.0162	29.4	0.89	769	9.4	17.4	0.52	42	13.1	2.1	0.06	6	14.7	0.3	0.01
30	38	1745	8.6	8.1	7.7	8.8	9.2	1.38	4.0	3.9	0.50	1.58	10.2	104	2.39	0.272	0.259	3.5	0.11	1265	1450	103	28	A	M	0.0246	43.0	1.13	1036	10.0	31.3	0.82	146	13.4	8.7	0.23	37	15.0	2.4	0.06
35	43	1673	9.7	9.1	8.7	9.8	10.3	1.50	4.2	4.7	0.47	1.86	12.3	103	2.44	0.249	0.237	3.9	0.14	1452	1450	115	31	B	M	0.0346	57.9	1.34	1189	10.6	46.9	1.09	294	13.8	20.5	0.48	109	15.3	8.3	0.19
40	48	1599	10.6	10.1	9.6	10.8	11.3	1.61	4.4	5.4	0.44	2.15	14.2	102	2.50	0.232	0.222	4.4	0.16	1624	1450	125	34	B	M	0.0460	73.6	1.53	1264	11.3	63.1	1.31	449	14.2	36.0	0.75	213	15.6	18.6	0.39
45	53	1524	11.6	11.0	10.4	11.6	12.2	1.71	4.6	6.0	0.42	2.44	16.0	101	2.56	0.220	0.210	4.7	0.18	1779	1450	134	37	B	M	0.0587	89.4	1.68	1288	12.0	79.5	1.50	586	14.6	53.5	1.01	329	15.9	32.5	0.61
50	58	1450	12.5	11.9	11.1	12.4	13.0	1.81	4.7	6.6	0.41	2.74	17.7	101	2.63	0.211	0.202	5.0	0.20	1917	1450	140	40	B	M	0.0724	105.0	1.81	1281	12.7	95.6	1.64	694	15.1	71.7	1.23	439	16.3	48.6	0.84
55	63	1378	13.3	12.7	11.9	13.2	13.8	1.91	4.9	7.2	0.40	3.03	19.2	100	2.69	0.205	0.196	5.3	0.22	2038	1450	146	42	B	M	0.0871	120.0	1.90	1255	13.4	111.0	1.76	772	15.5	89.5	1.42	533	16.7	65.7	1.04
60	68	1308	14.1	13.5	12.5	13.8	14.4	2.00	5.0	7.7	0.39	3.33	20.4	99	2.77	0.200	0.191	5.4	0.24	2143	1450	150	44	B	M	0.1026	134.2	1.97	1217	14.1	125.6	1.84	823	16.0	106.3	1.56	608	17.1	82.9	1.22
65	73	1242	14.9	14.2	13.1	14.5	15.1	2.09	5.1	8.2	0.38	3.62	21.6	98	2.84	0.196	0.188	5.6	0.25	2234	1450	153	45	B	M	0.1188	147.6	2.02	1174	14.7	139.3	1.90	853	16.5	122.1	1.67	664	17.5	99.5	1.36
70	78	1179	15.6	15.0	13.7	15.0	15.7	2.17	5.2	8.6	0.37	3.92	22.6	97	2.91	0.194	0.186	5.7	0.26	2311	1450	155	46	B	M	0.1357	160.0	2.05	1127	15.4	151.9	1.94	866	17.0	136.5	1.75	702	17.9	115.1	1.47
75	83	1120	16.3	15.6	14.2	15.6	16.2	2.25	5.4	9.0	0.37	4.21	23.4	96	2.99	0.192	0.184	5.8	0.28	2378	1450	156	47	B	M	0.1530	171.4	2.06	1080	16.0	163.5	1.97	866	17.5	149.5	1.80	725	18.4	129.6	1.56
80	88	1065	17.0	16.3	14.7	16.1	16.7	2.33	5.5	9.3	0.36	4.50	24.2	95	3.06	0.191	0.183	5.9	0.28	2434	1450	157	48	B	M	0.1707	181.8	2.06	1034	16.6	174.2	1.98	859	18.0	161.5	1.83	738	18.8	142.9	1.62
85	93	1014	17.7	17.0	15.2	16.5	17.2	2.40	5.6	9.7	0.36	4.79	24.9	94	3.14	0.190	0.183	5.9	0.29	2482	1450	157	49	B	M	0.1888	191.4	2.05	990	17.2	183.9	1.97	845	18.5	172.2	1.85	742	19.2	155.0	1.66
90	98	966	18.3	17.6	15.6	16.9	17.6	2.48	5.7	10.0	0.36	5.08	25.4	93	3.22	0.190	0.183	5.9	0.30	2523	1450	157	49	B	M	0.2069	199.9	2.04	947	17.8	192.6	1.96	827	18.9	181.8	1.85	739	19.7	165.9	1.69
95	103	922	18.9	18.2	16.0	17.3	18.0	2.55	5.8	10.2	0.36	5.37	25.9	92	3.29	0.190	0.183	6.0	0.31	2557	1450	157	49	B	M	0.2253	207.7	2.01	907	18.4	200.6	1.94	807	19.4	190.5	1.85	731	20.1	175.7	1.70
100	108	880	19.5	18.8	16.4	17.7	18.4	2.61	5.9	10.5	0.36	5.65	26.3	91	3.37	0.190	0.183	6.0	0.31	2587	1450	156	50	B	M	0.2438	214.5	1.98	868	18.9	207.5	1.92	784	19.9	198.0	1.83	719	20.5	184.3	1.70
105	113	842	20.1	19.3	16.8	18.1	18.7	2.68	6.0	10.7	0.36	5.93	26.6	90	3.45	0.191	0.184	5.9	0.32	2611	1450	156	50	B	M	0.2621	220.7	1.95	832	19.5	213.9	1.89	761	20.4	204.9	1.81	705	20.9	192.2	1.70
110	118	807	20.6	19.9	17.1	18.4	19.0	2.74	6.1	10.9	0.35	6.20	27.0	89	3.52	0.191	0.185	5.9	0.32	2633	1450	155	50	C	M	0.2805	226.4	1.92	799	20.0	219.7	1.86	739	20.8	211.1	1.79	690	21.4	199.2	1.69
115	123	775	21.2	20.4	17.4	18.7	19.4	2.80	6.2	11.1	0.35	6.48	27.3	88	3.59	0.192	0.186	5.9	0.33	2651	1450	154	50	C	M	0.2988	231.6	1.88	768	20.5	225.0	1.83	717	21.3	216.7	1.76	675	21.8	205.7	1.67
120	128	744	21.7	20.9	17.7	19.0	19.6	2.86	6.3	11.3	0.35	6.75	27.5	87	3.67	0.193	0.187	5.9	0.33	2666	1450	153	50	C	M	0.3171	235.9	1.84	738	21.0	229.3	1.79	694	21.7	221.3	1.73	658	22.2	211.1	1.65
125	133	716	22.2	21.4	18.0	19.3	19.9	2.91	6.4	11.4	0.35	7.01	27.7	87	3.74	0.194	0.188	5.9	0.33	2680	1450	152	50	C	M	0.3351	239.9	1.80	711	21.5	233.4	1.75	673	22.1	225.7	1.70	641	22.6	216.0	1.62
130	138	691	22.7	21.9	18.3	19.5	20.2	2.97	6.5	11.6	0.35	7.27	27.9	86	3.80	0.195	0.189	5.9	0.33	2692	1450	151	50	C	M	0.3528	243.8	1.76	687	22.0	237.4	1.72	654	22.6	229.9	1.66	626	23.0	220.8	1.60
135	143	667	23.1	22.3	18.5	19.8	20.4	3.02	6.5	11.7	0.35	7.53	28.0	85	3.87	0.196	0.190	5.8	0.34	2703	1450	150	50	C	M	0.3703	247.0	1.73	664	22.4	240.7	1.68	635	23.0	233.4	1.63	610	23.4	224.8	1.57
140	148	644	23.6	22.8	18.8	20.0	20.6	3.07	6.6	11.8	0.36	7.78	28.1	84	3.94	0.197	0.191	5.8	0.34	2713	1450	148	50	C	M	0.3876	249.6	1.68	641	22.9	243.3	1.64	616	23.4	236.2	1.59	594	23.8	228.2	1.54
145	153	624	24.0	23.2	19.0	20.2	20.8	3.12	6.7	11.9	0.36	8.03	28.3	83	4.00	0.198	0.192	5.8	0.34	2721	1450	147	50	C	M	0.4045	252.4	1.65	622	23.3	246.3	1.61	599	23.8	239.2	1.56	580	24.1	231.6	1.51
150	158	604	24.5	23.7	19.2	20.4	21.0	3.17	6.8	12.0	0.36	8.28	28.4	82	4.07	0.199	0.193	5.7	0.34	2730	1450	146	50	B	M	0.4212	254.4	1.61	602	23.7	248.3	1.57	582	24.2	241.4	1.53	565	24.5	234.2	1.48
155	163	586	24.9	24.1	19.4	20.6	21.2	3.21	6.8	12.0	0.36	8.52	28.5	81	4.13	0.201	0.195	5.7	0.34	2738	1450	145	50	B	M	0.4375	256.4	1.57	584	24.1	250.3	1.53	567	24.5	243.5	1.49	551	24.9	236.7	1.45
160	168	570	25.3	24.5	19.6	20.8	21.4	3.26	6.9	12.1	0.36	8.76	28.6	81	4.19	0.202	0.196	5.7	0.34	2745	1450	144	50	B	M	0.4535	258.5	1.54	569	24.5	252.5	1.50	553	24.9	245.8	1.46	539	25.2	239.3	1.42
165	173	554	25.7	24.9	19.8	21.0	21.6	3.30	7.0	12.1	0.36	8.99	28.7	80	4.25	0.203	0.197	5.7	0.34	2753	1450	143	50	B	M	0.4693	260.0	1.50	553	24.9	254.0	1.47	539	25.3	247.3	1.43	526	25.6	241.1	1.39
170	178	540	26.1	25.2	20.0	21.1	21.7	3.35	7.0	12.2	0.36	9.22	28.8	79	4.30	0.204	0.198	5.6	0.35	2760	1450	143	50	B	M	0.4846	261.7	1.47	539	25.3	255.7	1.44	526	25.6	249.1	1.40	515	25.9	243.2	1.37
175	183	526	26.4	25.6	20.2	21.3	21.9	3.39	7.1	12.2	0.36	9.45	28.9	78	4.36	0.205	0.199	5.6	0.35	2767	1450	142	50	B	M	0.4996	262.8	1.43	525	25.6	256.8	1.40	514	26.0	250.3	1.37	503	26.2	244.6	1.34
180	188	514	26.8	26.0	20.3	21.4	22.1	3.43	7.1	12.3	0.36	9.67	29.0	78	4.41	0.206	0.200	5.6	0.35	2774	1450	141	50	B	M	0.5142	264.3	1.40	513	26.0	258.4	1.37	503	26.3	251.9	1.34	493	26.6	246.4	1.31

Table A48. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
		SI = 13 m Initial Density = 3000 stems/ha																																						
5	13	2978	1.6	1.5	2.2	2.5	2.6	0.71	1.6	0.4	0.80	0.40	0.6	158	1.83	0.721	0.696	0.5	0.01	428	1963	27	12	A	M	0.0002	0.7	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	2925	3.2	2.9	3.3	3.9	4.1	0.83	2.3	0.9	0.70	0.54	2.3	122	1.85	0.475	0.456	1.3	0.02	634	1963	50	16	A	M	0.0013	3.9	0.21	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	2845	4.5	4.2	4.4	5.2	5.5	0.95	2.7	1.6	0.62	0.73	4.5	114	1.87	0.359	0.343	2.1	0.05	871	1963	74	21	A	M	0.0038	10.7	0.46	28	8.6	0.3	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	2744	5.7	5.4	5.5	6.5	6.8	1.07	3.1	2.4	0.56	0.94	7.0	111	1.91	0.294	0.280	2.9	0.08	1119	1963	96	26	A	M	0.0077	21.1	0.75	348	8.7	5.3	0.19	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	2626	6.8	6.4	6.6	7.7	8.1	1.19	3.4	3.2	0.51	1.16	9.7	110	1.95	0.254	0.242	3.7	0.11	1364	1963	115	31	B	M	0.0131	34.5	1.04	855	9.1	17.0	0.51	20	12.9	1.0	0.03	2	14.2	0.1	0.00
30	38	2497	7.9	7.5	7.6	8.8	9.2	1.30	3.6	4.0	0.47	1.40	12.2	109	2.00	0.228	0.217	4.4	0.14	1595	1963	132	35	B	M	0.0201	50.2	1.32	1262	9.5	33.0	0.86	98	13.2	5.6	0.15	17	14.7	1.1	0.03
35	43	2362	8.9	8.4	8.5	9.8	10.3	1.41	3.8	4.7	0.44	1.65	14.7	107	2.06	0.210	0.200	4.9	0.17	1806	1963	146	39	B	M	0.0285	67.3	1.56	1511	10.1	51.1	1.18	246	13.5	16.1	0.37	69	15.0	5.0	0.12
40	48	2227	9.8	9.3	9.4	10.7	11.3	1.52	4.0	5.4	0.42	1.91	16.9	106	2.12	0.198	0.188	5.4	0.19	1994	1963	157	43	B	M	0.0382	85.0	1.77	1638	10.7	69.9	1.45	430	13.8	32.1	0.67	165	15.3	13.5	0.28
45	53	2093	10.7	10.2	10.2	11.6	12.2	1.62	4.1	6.0	0.40	2.18	18.9	105	2.19	0.189	0.180	5.8	0.22	2157	1963	166	46	B	M	0.0490	102.6	1.93	1681	11.3	88.7	1.67	610	14.2	51.4	0.97	291	15.6	26.8	0.50
50	58	1963	11.6	11.0	10.9	12.4	13.0	1.72	4.3	6.6	0.39	2.44	20.7	104	2.26	0.183	0.174	6.1	0.24	2298	1963	172	48	B	M	0.0610	119.7	2.06	1670	12.0	106.7	1.83	761	14.6	72.1	1.24	424	15.9	43.4	0.75
55	63	1840	12.4	11.8	11.6	13.1	13.8	1.81	4.4	7.2	0.38	2.72	22.2	103	2.33	0.178	0.169	6.3	0.26	2417	1963	177	50	B	M	0.0739	136.0	2.15	1629	12.6	123.9	1.96	875	15.0	92.5	1.46	548	16.2	62.1	0.98
60	68	1725	13.2	12.6	12.3	13.8	14.4	1.90	4.6	7.7	0.37	2.99	23.6	102	2.41	0.175	0.167	6.5	0.28	2516	1963	180	52	C	M	0.0877	151.3	2.22	1571	13.3	140.0	2.05	955	15.4	112.1	1.64	651	16.6	81.4	1.19
65	73	1617	13.9	13.3	12.9	14.4	15.1	1.98	4.7	8.2	0.36	3.27	24.7	101	2.49	0.173	0.165	6.6	0.29	2598	1963	182	53	C	M	0.1023	165.4	2.26	1503	13.9	154.7	2.11	1002	15.9	130.1	1.78	731	17.0	100.3	1.37
70	78	1517	14.7	14.0	13.4	14.9	15.7	2.07	4.8	8.6	0.36	3.55	25.7	100	2.57	0.172	0.164	6.7	0.30	2665	1963	183	54	C	M	0.1175	178.3	2.28	1432	14.5	168.1	2.15	1026	16.3	146.4	1.87	789	17.4	118.1	1.51
75	83	1425	15.4	14.7	13.9	15.5	16.2	2.15	5.0	9.0	0.35	3.83	26.5	99	2.65	0.171	0.163	6.8	0.32	2720	1963	183	55	C	M	0.1334	190.1	2.29	1360	15.2	180.4	2.17	1031	16.8	161.1	1.94	826	17.8	134.6	1.62
80	88	1340	16.1	15.4	14.4	16.0	16.7	2.22	5.1	9.3	0.35	4.10	27.2	98	2.73	0.171	0.163	6.8	0.32	2763	1963	183	55	C	M	0.1497	200.6	2.28	1290	15.8	191.3	2.17	1023	17.3	174.1	1.97	847	18.2	149.5	1.70
85	93	1263	16.7	16.0	14.9	16.4	17.2	2.30	5.2	9.7	0.35	4.38	27.7	97	2.81	0.171	0.164	6.8	0.33	2798	1963	182	55	C	M	0.1664	210.2	2.26	1224	16.4	201.2	2.16	1006	17.7	185.8	1.99	856	18.6	163.1	1.75
90	98	1192	17.4	16.7	15.3	16.8	17.6	2.37	5.3	10.0	0.34	4.66	28.2	96	2.90	0.172	0.165	6.8	0.34	2825	1963	181	56	C	M	0.1834	218.6	2.23	1162	17.0	210.0	2.14	982	18.2	196.0	2.00	855	19.0	175.2	1.78
95	103	1127	18.0	17.3	15.7	17.2	18.0	2.44	5.5	10.2	0.34	4.94	28.6	95	2.98	0.173	0.165	6.7	0.34	2846	1963	179	56	C	M	0.2006	226.1	2.19	1103	17.5	217.8	2.11	955	18.7	204.9	1.99	846	19.4	185.8	1.80
100	108	1067	18.6	17.9	16.1	17.6	18.4	2.51	5.6	10.5	0.34	5.21	28.9	93	3.06	0.174	0.167	6.7	0.35	2862	1963	177	56	C	M	0.2181	232.7	2.15	1048	18.1	224.5	2.08	925	19.1	212.7	1.97	832	19.8	195.1	1.80
105	113	1013	19.1	18.4	16.5	18.0	18.7	2.57	5.7	10.7	0.34	5.48	29.2	92	3.14	0.175	0.168	6.7	0.35	2874	1963	176	56	C	M	0.2355	238.6	2.11	998	18.6	230.7	2.04	895	19.6	219.7	1.94	815	20.2	203.5	1.80
110	118	964	19.7	19.0	16.8	18.3	19.0	2.64	5.8	10.9	0.34	5.75	29.4	91	3.22	0.176	0.169	6.6	0.35	2883	1963	174	55	C	M	0.2531	244.0	2.07	951	19.2	236.3	2.00	865	20.1	225.9	1.91	797	20.7	211.0	1.79
115	123	918	20.2	19.5	17.1	18.6	19.4	2.70	5.9	11.1	0.34	6.02	29.6	90	3.30	0.178	0.171	6.6	0.35	2889	1963	172	55	C	M	0.2707	248.5	2.02	908	19.7	240.9	1.96	835	20.5	231.2	1.88	776	21.1	217.4	1.77
120	128	876	20.8	20.0	17.4	18.9	19.6	2.76	6.0	11.3	0.34	6.28	29.7	89	3.38	0.179	0.172	6.5	0.36	2893	1963	170	55	C	M	0.2881	252.4	1.97	868	20.2	245.0	1.91	805	20.9	235.7	1.84	754	21.5	222.9	1.74
125	133	838	21.3	20.5	17.7	19.1	19.9	2.81	6.1	11.4	0.34	6.54	29.8	89	3.45	0.180	0.174	6.5	0.36	2896	1963	168	55	C	M	0.3055	256.0	1.92	831	20.7	248.8	1.87	778	21.4	239.9	1.80	733	21.9	228.0	1.71
130	138	803	21.8	21.0	18.0	19.4	20.2	2.87	6.2	11.5	0.34	6.80	29.9	88	3.53	0.182	0.175	6.4	0.36	2898	1963	166	55	C	M	0.3228	259.2	1.88	797	21.1	252.1	1.82	751	21.8	243.5	1.76	713	22.3	232.4	1.68
135	143	771	22.3	21.5	18.2	19.6	20.4	2.92	6.3	11.7	0.34	7.05	30.0	87	3.60	0.183	0.177	6.4	0.36	2899	1963	164	54	C	M	0.3398	262.0	1.83	766	21.6	255.0	1.78	726	22.2	246.7	1.72	692	22.7	236.3	1.65
140	148	741	22.7	21.9	18.5	19.9	20.6	2.97	6.3	11.8	0.35	7.30	30.0	86	3.67	0.185	0.178	6.3	0.36	2899	1963	162	54	C	M	0.3567	264.3	1.78	737	22.0	257.4	1.74	702	22.6	249.3	1.68	672	23.0	239.6	1.62
145	153	714	23.2	22.4	18.7	20.1	20.8	3.02	6.4	11.9	0.35	7.55	30.1	85	3.74	0.186	0.180	6.3	0.36	2899	1963	161	54	C	M	0.3732	266.5	1.74	710	22.5	259.7	1.70	680	23.0	251.9	1.64	654	23.4	242.8	1.59
150	158	689	23.6	22.8	18.9	20.3	21.0	3.07	6.5	12.0	0.35	7.79	30.2	84	3.81	0.188	0.181	6.2	0.36	2899	1963	159	54	C	M	0.3897	268.5	1.70	686	22.9	261.8	1.66	659	23.4	254.1	1.61	636	23.8	245.5	1.55
155	163	665	24.0	23.2	19.1	20.5	21.2	3.12	6.6	12.0	0.35	8.03	30.2	83	3.88	0.189	0.183	6.2	0.36	2899	1963	157	53	C	M	0.4057	269.8	1.65	662	23.3	263.2	1.61	639	23.8	255.7	1.57	618	24.1	247.6	1.52
160	168	643	24.4	23.6	19.3	20.7	21.4	3.17	6.6	12.1	0.35	8.27	30.2	82	3.94	0.191	0.184	6.1	0.36	2899	1963	156	53	C	M	0.4215	271.0	1.61	641	23.7	264.5	1.57	620	24.2	257.2	1.53	601	24.5	249.5	1.48
165	173	623	24.9	24.0	19.5	20.8	21.6	3.21	6.7	12.1	0.35	8.50	30.2	81	4.01	0.192	0.186	6.1	0.36	2899	1963	154	53	C	M	0.4371	272.3	1.57	621	24.1	265.8	1.54	603	24.5	258.6	1.49	586	24.8	251.4	1.45
170	178	605	25.2	24.4	19.7	21.0	21.7	3.26	6.8	12.2	0.35	8.73	30.3	81	4.07	0.194	0.187	6.0	0.36	2899	1963	153	53	C	M	0.4522	273.6	1.54	603	24.5	267.2	1.50	587	24.9	260.1	1.46	572	25.2	253.2	1.42
175	183	587	25.6	24.8	19.8	21.2	21.9	3.30	6.8	12.2	0.35	8.96	30.3	80	4.13	0.195	0.188	6.0	0.36	2900	1963	152	53	C	M	0.4671	274.2	1.50	586	24.8	267.9	1.46	571	25.2	260.9	1.42	557	25.5	254.3	1.39
180	188	571	26.0	25.2	20.0	21.3	22.1	3.34	6.9	12.3	0.36	9.18	30.3	79	4.18	0.196	0.190	5.9	0.36	2901	1963	150	52	C	M	0.4818	275.1	1.46	570	25.2	268.8	1.43	556	25.6	261.8	1.39	544	25.9	255.6	1.36
		SI = 13 m Initial Density = 4000 stems/ha																																						
5	13	3964	1.5	1.4	2.1	2.5	2.6	0.70	1.6	0.4	0.79	0.39	0.7	168	1.59	0.626	0.603	0.6	0.01	554	2429	33	15	A	M	0.0002	0.7	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	3880	2.9	2.7	3.2	3.9	4.1	0.81	2.1	0.9	0.68	0.52	2.6	127	1.61	0.414	0.396	1.5	0.03	796	2429	62	20	A	M	0.0011	4.4	0.24	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	3753	4.2	3.9	4.4	5.2	5.5	0.92	2.6	1.6	0.60	0.68	5.2	119	1.63	0.314	0.299	2.5	0.06	1069	2429	90	26	A	M	0.0032	12.0	0.52	14	8.5	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	3593	5.3	5.0	5.4	6.5	6.8	1.03	2.9	2.4	0.53	0.87	8.1	115	1.67	0.258	0.245	3.5	0.09	1352	2429	116	31	B	M	0.0066	23.6	0.84	294	8.5	4.2	0.15	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	3410	6.4	6.0	6.5	7.6	8.1	1.15	3.1	3.2	0.49	1.08	11.0	113	1.71	0.224	0.212	4.4	0.12	1625	2429	138	37	B	M	0.0113	38.5	1.16	875	8.8	16.0	0.48	9	12.8	0.4	0.01	0	0.0	0.0	0.00
30	38	3213	7.4	7.0	7.4	8.7	9.2	1.25	3.4	4.0	0.45	1.29	13.9	112	1.76	0.202	0.191	5.1	0.16	1878	2429	157	42	B	M	0.0173	55.7	1.46	1405	9.3	33.3	0.87	65	13.0	3.6	0.09	8	14.6	0.5	0.01
35	43	3010	8.4	7.9	8.3	9.7	10.3	1.36	3.5	4.7	0.42	1.52	16.6	111	1.82	0.187	0.177	5.7	0.19	2104	2429	172	46	B	M	0.0247	74.3	1.72	1752	9.8	53.2	1.23	197	13.3	12.5	0.29	43	14.8	3.0	0.07
40	48	2809	9.3	8.8	9.2	10.7	11.3	1.46	3.7	5.4	0.40	1.76	19.0	109	1.89	0.177	0.167	6.2	0.22	2300	2429	184	49	B	M	0.0333	93.5	1.94	1936	10.3	74.0	1.54	389	13.6	27.8	0.58	123	15.1	9.7	0.20
45	53	2614	10.2	9.6	10.0	11.5	12.2	1.56	3.9	6.0	0.38	2.01	21.2	108	1.96	0.170	0.161	6.6	0.25	2468	2429	193	52	C	M	0.0430	112.4	2.11	2005	10.9	94.6	1.78	595	13.9	47.7	0.90	246	15.3	21.6	0.41
50	58	2429	11.0	10.5	10.7	12.3	13.0	1.65	4.0	6.6	0.37	2.26	23.0	107	2.03	0.165	0.156	6.9	0.27	2607	2429	199	55	C	M	0.0538	130.6	2.25	1999	11.5	114.3	1.97	781	14.3	69.9	1.20	389	15.6	37.9	0.65
55	63	2256	11.8	11.2	11.4	13.0	13.8	1.74	4.2	7.2	0.36	2.51	24.6	106	2.11	0.162	0.153	7.2	0.29	2721	2429	203	57	C	M	0.0655	147.8	2.34	1948	12.1	132.8	2.10	929	14.7	92.4	1.46	532	15.9	57.2	0.91
60	68	2095	12.6	12.0	12.0	13.7	14.4	1.83	4.3	7.7	0.35	2.77	26.0	105	2.18	0.159	0.151	7.3	0.31	2814	2429	205	58	C	M	0.0781	163.7	2.40	1872	12.8	149.8	2.20	1035	15.1	113.9	1.67	658	16.3	77.6	1.14
65	73	1948	13.3	12.7	12.6	14.3	15.1	1.91	4.4	8.1	0.35	3.03	27.1	103	2.27	0.158	0.150	7.4	0.32	2887	2429	206	59	C	M	0.0916	178.4	2.44	1784	13.4	165.4	2.26	1103	15.5	133.8	1.83	761	16.6	98.2	1.34
70	78	1813	14.0	13.4	13.2	14.9	15.7	1.99	4.6	8.6	0.34	3.30	28.0	102	2.35	0.158	0.150	7.5	0.34	2944	2429	206	60	C	M	0.1057	191.6	2.45	1691	14.0	179.5	2.30	1140	15.9	151.8	1.94	837	17.0	117.7	1.51
75	83	1690	14.7	14.1	13.7	15.4	16.2	2.07	4.7	8.9	0.34	3.57	28.8	101	2.43	0.158	0.150	7.5	0.35	2988	2429	205	60	C	M	0.1204	203.5	2.45	1598	14.6	192.1	2.31	1152	16.4	167.8	2.02	889	17.4	135.8	1.63
80	88	1579	15.4	14.8	14.2	15.9	16.7	2.15	4.8	9.3	0.34	3.83	29.4	100	2.52	0.158	0.151	7.5	0.35	3020	2429	204	61	C	M	0.1357	214.2	2.43	1509	15.2	203.4	2.31	1148	16.8	182.0	2.06	921	17.7	152.3	1.73
85	93	1478	16.1	15.4	14.7	16.3	17.2	2.22	5.0	9.6	0.34	4.10	29.9	99	2.60	0.159	0.151	7.5	0.36	3044	2429	202	61	C	M	0.1514	223.7	2.40	1424	15.8	213.4	2.29	1130	17.3	194.4	2.09	936	18.1	167.0	1.79
90	98	1386	16.7	16.0	15.1	16.8	17.6	2.30	5.1	9.9	0.33	4.37	30.3	97	2.69	0.160	0.153	7.4	0.37	3060	2429	199	61	C	M	0.1674	232.0	2.36	1344	16.3	222.2	2.26	1104	17.7	205.2	2.09	939	18.5	180.1	1.83
95	103	1303	17.3	16.6	15.5	17.2	18.0	2.36	5.2	10.2	0.33	4.63	30.6	96	2.77	0.161	0.154	7.4	0.37	3071	2429	197	60	C	M	0.1837	239.4	2.32	1270	16.9	230.0	2.23	1073	18.2	214.6	2.08	932	18.9	191.6	1.86
100	108	1228	17.9	17.2	15.9	17.5	18.4	2.43	5.3	10.4	0.33	4.90	30.9	95	2.85	0.163	0.155	7.3	0.37	3076	2429	194	60	C	M	0.2003	246.0	2.27	1202	17.5	236.9	2.19	1039	18.6	222.9	2.06	919	19.3	201.8	1.87
105	113	1160	18.5	17.8	16.2	17.9	18.7	2.50	5.4	10.7	0.33	5.16	31.1	94	2.94	0.164	0.157	7.2	0.37	3078	2429	191	60	C	M	0.2170	251.7	2.22	1139	18.0	242.9	2.15	1003	19.1	230.0	2.03	901	19.7	210.7	1.86
110	118	1097	19.0	18.3	16.5	18.2	19.0	2.56	5.5	10.9	0.33	5.43	31.2	93	3.02	0.166	0.158	7.2	0.38	3078	2429	189	60	C	M	0.2338	256.5	2.17	1080	18.5	248.0	2.10	966	19.5	236.0	2.00	879	20.2	218.3	1.85
115	123	1041	19.6	18.9	16.9	18.5	19.4	2.62	5.6	11.1	0.33	5.69	31.3	92	3.10	0.168	0.160	7.1	0.38	3075	2429	186	59	C	M	0.2506	260.9	2.12	1027	19.0	252.6	2.05	932	19.9	241.5	1.96	856	20.6	225.1	1.83
120	128	990	20.1	19.4	17.1	18.8	19.6	2.68	5.7	11.2	0.33	5.94	31.4	91	3.18	0.169	0.162	7.0	0.38	3070	2429	183	59	C	M	0.2675	264.8	2.07	979	19.5	256.7	2.00	898	20.4	246.2	1.92	833	20.9	231.1	1.80
125	133	943	20.6	19.9	17.4	19.1	19.9	2.74	5.8	11.4	0.33	6.20	31.5	90	3.26	0.171	0.164	6.9	0.38	3065	2429	181	58	C	M	0.2843	268.1	2.01	934	20.0	260.2	1.95	865	20.8	250.2	1.88	808	21.3	236.2	1.77
130	138	900	21.1	20.4	17.7	19.3	20.2	2.79	5.9	11.5	0.34	6.45	31.5	89	3.33	0.173	0.165	6.9	0.38	3059	2429	178	58	C	M	0.3010	270.9	1.96	892	20.5	263.2	1.91	833	21.2	253.6	1.84	784	21.7	240.7	1.74
135	143	860	21.6	20.8	17.9	19.6	20.4	2.85	6.0	11.6	0.34	6.70	31.5	88	3.41	0.174	0.167	6.8	0.38	3052	2429	176	58	C	M	0.3176	273.1	1.91	853	21.0	265.5	1.85	803	21.6	256.4	1.79	760	22.1	244.4	1.71
140	148	824	22.1	21.3	18.2	19.8	20.6	2.90	6.1	11.8	0.34	6.95	31.5	87	3.48	0.176	0.169	6.7	0.38	3045	2429	173	57	C	M	0.3339	275.1	1.86	818	21.4	267.7	1.81	774	22.0	258.9	1.75	737	22.5	247.7	1.67
145	153	791	22.5	21.7	18.4	20.0	20.8	2.95	6.2	11.9	0.34	7.19	31.5	86	3.56	0.178	0.171	6.6	0.38	3039	2429	171	57	C	M	0.3501	276.9	1.81	786	21.8	269.7	1.76	748	22.4	261.1	1.70	715	22.9	250.7	1.64
150	158	761	23.0	22.2	18.6	20.2	21.0	3.00	6.3	11.9	0.34	7.43	31.5	85	3.62	0.179	0.172	6.6	0.38	3032	2429	169	57	C	M	0.3661	278.6	1.76	757	22.3	271.5	1.72	723	22.8	263.2	1.66	694	23.2	253.4	1.60
155	163	733	23.4	22.6	18.8	20.4	21.2	3.05	6.4	12.0	0.34	7.67	31.5	84	3.69	0.181	0.174	6.5	0.38	3026	2429	167	56	C	M	0.3819	279.9	1.72	730	22.7	272.9	1.67	700	23.2	264.8	1.62	674	23.6	255.6	1.57
160	168	707	23.8	23.0	19.0	20.6	21.4	3.10	6.4	12.1	0.34	7.91	31.5	84	3.76	0.183	0.176	6.4	0.38	3020	2429	165	56	C	M	0.3975	281.0	1.67	704	23.1	274.1	1.63	678	23.6	266.2	1.58	655	23.9	257.5	1.53
165	173	683	24.2	23.4	19.2	20.7	21.6	3.14	6.5	12.1	0.35	8.14	31.5	83	3.83	0.184	0.177	6.4	0.38	3015	2429	163	56	C	M	0.4127	281.9	1.63	681	23.5	275.0	1.59	657	24.0	267.3	1.54	637	24.3	259.1	1.50
170	178	661	24.6	23.8	19.4	20.9	21.7	3.19	6.6	12.2	0.35	8.36	31.4	82	3.89	0.186	0.179	6.3	0.38	3010	2429	161	55	C	M	0.4277	282.7	1.59	659	23.9	275.9	1.55	638	24.3	268.4	1.51	620	24.6	260.6	1.46
175	183	640	25.0	24.2	19.6	21.1	21.9	3.23	6.7	12.2	0.35	8.59	31.4	81	3.95	0.188	0.180	6.3	0.38	3006	2429	160	55	C	M	0.4423	283.1	1.55	638	24.2	276.4	1.51	620	24.6	269.0	1.47	603	25.0	261.6	1.43
180	188	621	25.4	24.6	19.7	21.2	22.1	3.27	6.7	12.3	0.35	8.81	31.4	80	4.01	0.189	0.182	6.2	0.38	3002	2429	158	55	C	M	0.4568	283.7	1.51	619	24.6	277.1	1.47	603	25.0	269.7	1.43	588	25.3	262.7	1.40

Table A49. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 13 m Initial Density = 5000 stems/ha																																								
5	13	4949	1.4	1.3	2.1	2.5	2.6	0.70	1.5	0.4	0.78	0.38	0.8	177	1.42	0.561	0.540	0.6	0.01	677	2863	39	19	A	M	0.0002	0.8	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	4830	2.8	2.6	3.2	3.9	4.1	0.79	2.0	1.0	0.67	0.50	2.9	132	1.44	0.371	0.355	1.7	0.03	950	2863	72	24	A	M	0.0010	4.8	0.26	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	4651	4.0	3.7	4.3	5.2	5.5	0.90	2.4	1.7	0.58	0.65	5.8	122	1.47	0.282	0.268	2.9	0.06	1255	2863	105	30	B	M	0.0028	13.0	0.56	7	8.4	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	4427	5.1	4.8	5.4	6.4	6.8	1.01	2.7	2.4	0.52	0.82	9.0	118	1.50	0.233	0.221	4.0	0.10	1566	2863	134	36	B	M	0.0058	25.6	0.91	241	8.4	3.3	0.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	4173	6.1	5.7	6.4	7.6	8.1	1.11	3.0	3.2	0.47	1.01	12.2	116	1.55	0.203	0.192	4.9	0.14	1861	2863	159	42	B	M	0.0100	41.7	1.26	858	8.7	14.7	0.44	5	12.6	0.2	0.01	0	0.0	0.0	0.00
30	38	3902	7.1	6.7	7.3	8.7	9.2	1.22	3.2	4.0	0.43	1.21	15.3	115	1.60	0.184	0.173	5.8	0.18	2131	2863	179	47	B	M	0.0154	60.2	1.58	1491	9.1	32.8	0.86	42	12.9	2.3	0.06	4	14.4	0.2	0.01
35	43	3628	8.0	7.6	8.2	9.7	10.3	1.32	3.3	4.7	0.41	1.43	18.2	113	1.66	0.171	0.161	6.4	0.21	2367	2863	195	52	C	M	0.0221	80.0	1.85	1934	9.5	54.1	1.25	155	13.1	9.5	0.22	27	14.7	1.8	0.04
40	48	3360	8.9	8.4	9.1	10.6	11.3	1.41	3.5	5.4	0.39	1.65	20.8	112	1.73	0.162	0.153	7.0	0.25	2568	2863	207	55	C	M	0.0299	100.3	2.08	2181	10.0	76.5	1.59	342	13.4	23.7	0.49	91	14.9	7.0	0.15
45	53	3103	9.7	9.2	9.8	11.5	12.2	1.51	3.7	6.0	0.37	1.88	23.0	110	1.80	0.156	0.147	7.4	0.27	2736	2863	216	58	C	M	0.0387	120.2	2.26	2280	10.6	98.6	1.85	562	13.7	43.4	0.82	204	15.2	17.4	0.33
50	58	2863	10.5	10.0	10.6	12.3	13.0	1.60	3.8	6.6	0.36	2.12	25.0	109	1.87	0.152	0.144	7.7	0.30	2872	2863	222	61	C	M	0.0486	139.2	2.39	2283	11.2	119.7	2.06	774	14.1	66.4	1.14	349	15.4	32.8	0.56
55	63	2640	11.3	10.8	11.2	13.0	13.8	1.69	4.0	7.1	0.35	2.36	26.6	108	1.95	0.150	0.142	7.9	0.32	2981	2863	225	62	C	M	0.0595	157.0	2.49	2227	11.8	139.3	2.21	951	14.4	90.4	1.43	503	15.7	51.9	0.82
60	68	2437	12.1	11.5	11.9	13.6	14.4	1.77	4.1	7.6	0.34	2.61	27.9	106	2.03	0.148	0.140	8.0	0.34	3066	2863	227	64	C	M	0.0712	173.6	2.55	2139	12.4	157.3	2.31	1084	14.8	113.7	1.67	647	16.0	73.1	1.07
65	73	2251	12.8	12.2	12.5	14.3	15.1	1.86	4.2	8.1	0.34	2.86	29.0	105	2.11	0.148	0.140	8.1	0.35	3130	2863	227	64	C	M	0.0837	188.5	2.58	2033	13.0	173.5	2.37	1173	15.2	135.2	1.85	768	16.4	94.6	1.29
70	78	2083	13.5	12.9	13.0	14.8	15.7	1.94	4.4	8.5	0.33	3.11	29.9	104	2.19	0.148	0.140	8.1	0.36	3178	2863	225	65	C	M	0.0970	202.0	2.58	1922	13.5	188.1	2.41	1224	15.6	154.6	1.98	861	16.7	115.4	1.48
75	83	1932	14.2	13.6	13.5	15.3	16.2	2.02	4.5	8.9	0.33	3.37	30.7	103	2.28	0.148	0.140	8.1	0.37	3213	2863	224	65	C	M	0.1108	214.1	2.57	1811	14.1	201.1	2.42	1247	16.0	172.0	2.07	928	17.1	134.9	1.62
80	88	1796	14.9	14.3	14.0	15.8	16.7	2.09	4.6	9.3	0.33	3.63	31.3	101	2.36	0.149	0.141	8.1	0.38	3236	2863	221	65	C	M	0.1252	224.9	2.55	1704	14.7	212.7	2.41	1247	16.4	187.1	2.12	971	17.4	152.7	1.73
85	93	1673	15.5	14.9	14.5	16.3	17.2	2.17	4.8	9.6	0.33	3.89	31.7	100	2.44	0.150	0.142	8.0	0.38	3250	2863	218	65	C	M	0.1401	234.4	2.52	1603	15.3	222.8	2.39	1232	16.9	200.4	2.15	995	17.8	168.6	1.81
90	98	1562	16.2	15.5	14.9	16.7	17.6	2.24	4.9	9.9	0.33	4.15	32.0	99	2.53	0.151	0.144	8.0	0.39	3257	2863	215	65	C	M	0.1553	242.6	2.47	1507	15.9	231.7	2.36	1205	17.3	211.7	2.16	1003	18.2	182.6	1.86
95	103	1463	16.8	16.1	15.3	17.1	18.0	2.31	5.0	10.2	0.33	4.40	32.3	98	2.61	0.153	0.145	7.9	0.39	3258	2863	212	64	C	M	0.1709	250.0	2.42	1420	16.4	239.6	2.32	1172	17.8	221.7	2.15	1000	18.6	195.1	1.89
100	108	1373	17.4	16.7	15.6	17.5	18.4	2.37	5.1	10.4	0.33	4.66	32.5	97	2.70	0.155	0.147	7.8	0.39	3255	2863	208	64	C	M	0.1867	256.4	2.37	1339	17.0	246.4	2.28	1135	18.2	230.2	2.13	988	19.0	205.9	1.90
105	113	1292	17.9	17.3	16.0	17.8	18.7	2.44	5.2	10.6	0.33	4.92	32.7	96	2.78	0.156	0.149	7.7	0.40	3249	2863	205	64	C	M	0.2027	261.9	2.31	1265	17.5	252.3	2.23	1095	18.6	237.6	2.10	970	19.4	215.3	1.90
110	118	1218	18.5	17.8	16.3	18.1	19.0	2.50	5.4	10.8	0.33	5.17	32.7	94	2.87	0.158	0.150	7.6	0.40	3240	2863	201	63	C	M	0.2189	266.6	2.26	1196	18.0	257.3	2.18	1055	19.1	243.8	2.06	948	19.8	223.4	1.89
115	123	1152	19.0	18.3	16.6	18.4	19.4	2.56	5.5	11.0	0.33	5.43	32.8	93	2.95	0.160	0.152	7.5	0.40	3230	2863	198	63	C	M	0.2351	270.8	2.20	1134	18.5	261.9	2.13	1016	19.5	249.3	2.02	924	20.1	230.6	1.87
120	128	1092	19.6	18.8	16.9	18.7	19.6	2.62	5.6	11.2	0.33	5.68	32.8	92	3.03	0.162	0.154	7.4	0.40	3219	2863	195	62	C	M	0.2514	274.5	2.14	1077	19.0	265.8	2.07	977	19.9	254.0	1.98	898	20.5	236.8	1.85
125	133	1037	20.1	19.3	17.2	19.0	19.9	2.68	5.7	11.4	0.33	5.93	32.8	91	3.11	0.164	0.156	7.3	0.40	3206	2863	192	61	C	M	0.2676	277.5	2.08	1025	19.5	269.0	2.02	940	20.3	257.9	1.94	872	20.9	242.1	1.82
130	138	987	20.6	19.8	17.5	19.2	20.2	2.73	5.8	11.5	0.33	6.18	32.8	90	3.18	0.165	0.158	7.2	0.40	3194	2863	189	61	C	M	0.2837	280.0	2.03	977	20.0	271.8	1.97	904	20.8	261.3	1.89	845	21.3	246.7	1.79
135	143	941	21.1	20.3	17.7	19.5	20.4	2.79	5.9	11.6	0.33	6.42	32.8	89	3.26	0.167	0.160	7.1	0.40	3181	2863	186	60	C	M	0.2998	282.1	1.97	933	20.4	274.1	1.91	870	21.2	264.1	1.84	819	21.7	250.6	1.75
140	148	899	21.5	20.8	17.9	19.7	20.6	2.84	6.0	11.7	0.33	6.67	32.7	88	3.34	0.169	0.162	7.0	0.39	3169	2863	183	60	C	M	0.3158	283.9	1.92	892	20.9	276.0	1.86	838	21.6	266.4	1.80	793	22.1	253.9	1.71
145	153	861	22.0	21.2	18.2	19.9	20.8	2.89	6.0	11.8	0.33	6.91	32.7	87	3.41	0.171	0.164	7.0	0.39	3157	2863	180	59	C	M	0.3316	285.5	1.86	855	21.3	277.8	1.81	808	22.0	268.6	1.75	769	22.4	256.9	1.68
150	158	826	22.4	21.7	18.4	20.1	21.0	2.94	6.1	11.9	0.34	7.14	32.6	86	3.48	0.173	0.165	6.9	0.39	3145	2863	178	59	C	M	0.3472	286.8	1.81	821	21.7	279.2	1.77	780	22.4	270.3	1.71	745	22.8	259.4	1.64
155	163	794	22.9	22.1	18.6	20.3	21.2	2.99	6.2	12.0	0.34	7.38	32.6	86	3.55	0.175	0.167	6.8	0.39	3134	2863	175	59	C	M	0.3626	287.9	1.76	790	22.2	280.5	1.72	754	22.7	271.9	1.67	723	23.1	261.6	1.60
160	168	764	23.3	22.5	18.8	20.5	21.4	3.04	6.3	12.1	0.34	7.61	32.5	85	3.62	0.177	0.169	6.7	0.39	3123	2863	173	58	C	M	0.3779	288.7	1.72	760	22.6	281.4	1.67	729	23.1	273.0	1.62	701	23.5	263.3	1.57
165	173	737	23.7	22.9	19.0	20.7	21.6	3.08	6.4	12.1	0.34	7.84	32.5	84	3.68	0.178	0.171	6.6	0.39	3113	2863	171	58	C	M	0.3928	289.5	1.67	734	23.0	282.4	1.63	706	23.5	274.2	1.58	681	23.9	265.0	1.53
170	178	711	24.1	23.3	19.1	20.8	21.7	3.13	6.4	12.2	0.34	8.06	32.4	83	3.75	0.180	0.172	6.6	0.39	3104	2863	169	57	C	M	0.4076	289.8	1.63	708	23.4	282.7	1.59	683	23.8	274.7	1.54	661	24.2	266.1	1.49
175	183	688	24.5	23.7	19.3	21.0	21.9	3.17	6.5	12.2	0.34	8.28	32.4	82	3.81	0.182	0.174	6.5	0.39	3096	2863	167	57	C	M	0.4221	290.4	1.59	686	23.7	283.4	1.55	663	24.2	275.5	1.50	644	24.5	267.4	1.46
180	188	666	24.9	24.0	19.5	21.1	22.1	3.21	6.6	12.2	0.35	8.50	32.3	81	3.87	0.183	0.176	6.5	0.39	3089	2863	165	57	C	M	0.4363	290.6	1.54	664	24.1	283.7	1.51	644	24.5	276.0	1.47	626	24.9	268.2	1.43
SI = 13 m Initial Density = 6000 stems/ha																																								
5	13	5933	1.3	1.2	2.1	2.5	2.6	0.69	1.5	0.4	0.76	0.38	0.8	184	1.30	0.513	0.493	0.7	0.01	799	3274	45	23	A	M	0.0001	0.8	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	5776	2.6	2.5	3.2	3.9	4.1	0.78	2.0	1.0	0.66	0.49	3.2	136	1.32	0.340	0.324	1.9	0.03	1100	3274	82	28	A	M	0.0009	5.1	0.28	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	5541	3.8	3.6	4.2	5.2	5.5	0.88	2.3	1.7	0.57	0.63	6.3	126	1.34	0.259	0.246	3.2	0.07	1432	3274	118	35	B	M	0.0025	13.9	0.60	4	8.3	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	5248	4.9	4.6	5.3	6.4	6.8	0.99	2.6	2.5	0.51	0.79	9.7	121	1.38	0.215	0.203	4.4	0.11	1766	3274	150	41	B	M	0.0052	27.3	0.97	194	8.3	2.5	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	4919	5.9	5.5	6.3	7.6	8.1	1.09	2.8	3.2	0.46	0.96	13.2	119	1.43	0.188	0.177	5.5	0.15	2080	3274	178	47	B	M	0.0090	44.4	1.34	820	8.6	13.3	0.40	3	12.4	0.1	0.00	0	0.0	0.0	0.00
30	38	4573	6.8	6.4	7.2	8.7	9.2	1.19	3.0	4.0	0.42	1.15	16.6	117	1.48	0.170	0.160	6.4	0.19	2361	3274	199	53	C	M	0.0140	63.9	1.67	1537	8.9	31.8	0.83	28	12.8	1.5	0.04	2	14.2	0.1	0.00
35	43	4225	7.7	7.3	8.1	9.7	10.3	1.28	3.2	4.7	0.40	1.36	19.6	115	1.54	0.159	0.149	7.1	0.23	2604	3274	216	57	C	M	0.0201	84.8	1.96	2072	9.3	54.3	1.26	121	13.0	7.3	0.17	17	14.6	1.1	0.03
40	48	3888	8.6	8.1	8.9	10.6	11.3	1.38	3.4	5.4	0.38	1.57	22.3	114	1.60	0.151	0.142	7.6	0.27	2808	3274	228	61	C	M	0.0272	105.9	2.20	2383	9.8	78.0	1.62	296	13.3	20.0	0.42	67	14.9	5.0	0.10
45	53	3570	9.4	8.9	9.7	11.5	12.2	1.47	3.5	6.0	0.36	1.79	24.7	112	1.67	0.146	0.137	8.1	0.30	2974	3274	237	64	C	M	0.0355	126.6	2.38	2519	10.4	101.4	1.91	522	13.6	39.2	0.74	168	15.1	14.0	0.26
50	58	3274	10.2	9.7	10.4	12.2	13.0	1.56	3.6	6.6	0.35	2.01	26.6	111	1.75	0.143	0.134	8.3	0.32	3106	3274	242	66	C	M	0.0447	146.3	2.52	2535	10.9	123.6	2.13	753	13.9	62.6	1.08	309	15.3	28.2	0.48
55	63	3003	10.9	10.4	11.1	12.9	13.8	1.65	3.8	7.1	0.34	2.24	28.3	109	1.82	0.141	0.133	8.5	0.34	3209	3274	245	67	C	M	0.0548	164.7	2.61	2478	11.5	144.2	2.28	954	14.2	87.5	1.39	469	15.6	46.9	0.74
60	68	2758	11.7	11.1	11.7	13.6	14.4	1.73	3.9	7.6	0.34	2.48	29.6	108	1.90	0.140	0.132	8.7	0.36	3287	3274	245	68	C	M	0.0658	181.6	2.66	2380	12.0	163.0	2.39	1111	14.6	112.1	1.64	625	15.9	68.2	1.00
65	73	2536	12.4	11.9	12.3	14.2	15.1	1.81	4.1	8.0	0.33	2.72	30.7	107	1.99	0.140	0.132	8.7	0.37	3343	3274	245	69	C	M	0.0776	196.9	2.69	2261	12.6	179.9	2.46	1221	15.0	135.1	1.85	761	16.2	90.5	1.24
70	78	2336	13.1	12.5	12.8	14.8	15.7	1.89	4.2	8.5	0.33	2.97	31.6	105	2.07	0.140	0.132	8.7	0.38	3383	3274	243	69	C	M	0.0901	210.5	2.69	2133	13.2	194.9	2.49	1288	15.3	155.8	1.99	871	16.5	112.3	1.44
75	83	2158	13.8	13.2	13.3	15.3	16.2	1.97	4.3	8.8	0.32	3.22	32.3	104	2.15	0.141	0.133	8.7	0.39	3408	3274	240	69	C	M	0.1032	222.8	2.68	2006	13.8	208.3	2.50	1322	15.8	174.4	2.10	952	16.8	132.9	1.60
80	88	1998	14.5	13.9	13.8	15.8	16.7	2.04	4.5	9.2	0.32	3.46	32.8	103	2.24	0.142	0.134	8.6	0.40	3423	3274	237	69	C	M	0.1169	233.6	2.65	1883	14.4	220.1	2.50	1329	16.2	190.5	2.16	1007	17.2	151.8	1.72
85	93	1854	15.1	14.5	14.3	16.2	17.2	2.12	4.6	9.5	0.32	3.72	33.2	101	2.32	0.143	0.135	8.5	0.40	3429	3274	233	69	C	M	0.1311	243.0	2.61	1766	14.9	230.4	2.47	1316	16.6	204.4	2.19	1039	17.6	168.7	1.81
90	98	1726	15.7	15.1	14.7	16.6	17.6	2.19	4.7	9.8	0.32	3.97	33.5	100	2.41	0.145	0.137	8.5	0.41	3427	3274	229	68	C	M	0.1457	251.4	2.56	1658	15.5	239.4	2.44	1292	17.0	216.6	2.21	1054	17.9	183.8	1.87
95	103	1611	16.3	15.7	15.1	17.0	18.0	2.26	4.8	10.1	0.32	4.22	33.8	99	2.49	0.146	0.138	8.4	0.41	3421	3274	225	68	C	M	0.1606	258.7	2.51	1558	16.0	247.3	2.40	1258	17.4	227.0	2.20	1055	18.3	197.0	1.91
100	108	1507	16.9	16.3	15.4	17.4	18.4	2.32	5.0	10.4	0.32	4.47	33.9	98	2.58	0.148	0.140	8.2	0.41	3411	3274	221	67	C	M	0.1757	264.8	2.45	1465	16.6	254.0	2.35	1218	17.9	235.7	2.18	1045	18.7	208.4	1.93
105	113	1414	17.5	16.8	15.8	17.7	18.7	2.39	5.1	10.6	0.32	4.72	34.0	97	2.66	0.150	0.142	8.1	0.41	3397	3274	217	67	C	M	0.1912	270.3	2.39	1381	17.1	259.9	2.30	1176	18.3	243.4	2.15	1029	19.1	218.4	1.93
110	118	1331	18.0	17.4	16.1	18.1	19.0	2.45	5.2	10.8	0.32	4.97	34.0	96	2.74	0.152	0.144	8.0	0.41	3382	3274	213	66	C	M	0.2067	275.1	2.33	1304	17.6	265.1	2.24	1134	18.7	250.0	2.12	1008	19.4	227.2	1.92
115	123	1255	18.6	17.9	16.4	18.4	19.4	2.51	5.3	11.0	0.32	5.22	34.0	95	2.82	0.154	0.146	7.9	0.41	3365	3274	209	65	C	M	0.2223	279.0	2.27	1233	18.1	269.4	2.19	1091	19.1	255.5	2.07	982	19.8	234.6	1.90
120	128	1186	19.1	18.4	16.7	18.6	19.6	2.57	5.4	11.2	0.32	5.46	34.0	93	2.90	0.156	0.148	7.8	0.41	3348	3274	205	65	C	M	0.2380	282.3	2.20	1168	18.6	273.0	2.13	1048	19.6	260.1	2.03	955	20.2	241.0	1.88
125	133	1124	19.6	18.9	17.0	18.9	19.9	2.63	5.5	11.3	0.32	5.71	34.0	92	2.98	0.158	0.150	7.7	0.41	3330	3274	201	64	C	M	0.2537	285.2	2.14	1109	19.1	276.2	2.07	1008	20.0	264.2	1.98	927	20.6	246.5	1.85
130	138	1068	20.1	19.4	17.3	19.2	20.2	2.68	5.6	11.5	0.32	5.95	33.9	91	3.06	0.160	0.152	7.6	0.41	3312	3274	198	64	C	M	0.2695	287.8	2.08	1056	19.5	279.1	2.02	969	20.4	267.7	1.94	899	21.0	251.4	1.82
135	143	1016	20.6	19.9	17.5	19.4	20.4	2.74	5.7	11.6	0.33	6.19	33.8	90	3.14	0.162	0.154	7.5	0.41	3294	3274	194	63	C	M	0.2850	289.6	2.02	1006	20.0	281.2	1.96	931	20.8	270.3	1.89	871	21.3	255.4	1.78
140	148	969	21.1	20.3	17.7	19.6	20.6	2.79	5.8	11.7	0.33	6.43	33.8	89	3.21	0.164	0.156	7.4	0.41	3277	3274	191	62	C	M	0.3006	291.3	1.97	960	20.4	283.0	1.91	896	21.2	272.7	1.84	843	21.7	258.8	1.75
145	153	926	21.5	20.8	18.0	19.8	20.8	2.84	5.9	11.8	0.33	6.66	33.7	88	3.29	0.166	0.158	7.3	0.41	3260	3274	188	62	C	M	0.3160	292.6	1.91	919	20.9	284.6	1.86	863	21.6	274.7	1.79	817	22.1	261.8	1.71
150	158	887	22.0	21.2	18.2	20.0	21.0	2.89	6.0	11.9	0.33	6.90	33.6	87	3.36	0.168	0.160	7.2	0.41	3244	3274	185	61	C	M	0.3313	293.9	1.86	881	21.3	286.0	1.81	832	22.0	276.5	1.75	791	22.4	264.3	1.67
155	163	850	22.4	21.6	18.4	20.2	21.2	2.94	6.1	12.0	0.33	7.13	33.5	86	3.43	0.170	0.162	7.1	0.40	3228	3274	182	61	C	M	0.3464	294.4	1.80	845	21.7	286.7	1.76	802	22.3	277.5	1.70	766	22.8	266.2	1.63
160	168	817	22.8	22.0	18.6	20.4	21.4	2.99	6.1	12.0	0.33	7.36	33.4	86	3.50	0.171	0.163	7.0	0.40	3214	3274	180	60	C	M	0.3613	295.2	1.76	812	22.1	287.6	1.71	775	22.7	278.7	1.66	743	23.1	268.1	1.59
165	173	786	23.2	22.4	18.7	20.6	21.6	3.03	6.2	12.1	0.34	7.58	33.3	85	3.57	0.173	0.165	6.9	0.40	3200	3274	177	60	C	M	0.3760	295.5	1.71	782	22.5	288.1	1.66	749	23.1	279.4	1.61	721	23.5	269.5	1.56
170	178	758	23.6	22.8	18.9	20.8	21.7	3.08	6.3	12.1	0.34	7.80	33.2	84	3.63	0.175	0.167	6.8	0.40	3187	3274	175	59	C	M	0.3905	296.0	1.66	755	22.9	288.6	1.62	725	23.4	280.2	1.57	700	23.8	270.8	1.52
175	183	732	24.0	23.2	19.1	20.9	21.9	3.12	6.4	12.2	0.34	8.02	33.2	83	3.70	0.177	0.169	6.8	0.40	3175	3274	173	59	C	M	0.4048	296.3	1.62	729	23.3	289.0	1.58	703	23.8	280.8	1.53	680	24.1	271.9	1.48
180	188	708	24.4	23.6	19.2	21.1	22.1	3.16	6.4	12.2	0.34	8.24	33.1	82	3.76	0.178	0.170	6.7	0.40	3165	3274	171	58	C	M	0.4188	296.5	1.58	705	23.7	289.3	1.54	682	24.1	281.3	1.50	661	24.5	272.8	1.45

Table A50. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 13 m Initial Density = 7000 stems/ha																																								
5	13	6916	1.3	1.2	2.1	2.5	2.6	0.69	1.4	0.5	0.75	0.38	0.9	191	1.20	0.476	0.456	0.8	0.01	918	3668	51	26	A	M	0.0001	0.9	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	6718	2.5	2.4	3.1	3.9	4.1	0.78	1.9	1.0	0.64	0.48	3.4	140	1.22	0.316	0.301	2.1	0.04	1245	3668	92	32	B	M	0.0008	5.4	0.30	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	6423	3.7	3.4	4.2	5.2	5.5	0.87	2.2	1.7	0.56	0.61	6.7	128	1.25	0.241	0.228	3.5	0.08	1601	3668	131	39	B	M	0.0023	14.7	0.63	2	8.2	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	6059	4.7	4.4	5.2	6.4	6.8	0.97	2.5	2.5	0.49	0.76	10.4	124	1.28	0.200	0.189	4.8	0.12	1955	3668	166	46	B	M	0.0048	28.8	1.02	155	8.3	2.0	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	5652	5.6	5.3	6.2	7.6	8.1	1.07	2.7	3.2	0.45	0.93	14.2	121	1.33	0.175	0.165	6.0	0.16	2284	3668	195	52	C	M	0.0083	46.7	1.41	770	8.5	12.0	0.36	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	38	5227	6.6	6.2	7.2	8.7	9.2	1.16	2.9	4.0	0.41	1.11	17.7	119	1.38	0.160	0.150	6.9	0.21	2575	3668	218	58	C	M	0.0129	67.2	1.76	1555	8.8	30.6	0.80	18	12.8	1.0	0.03	0	0.0	0.0	0.00
35	43	4804	7.4	7.0	8.0	9.7	10.3	1.26	3.1	4.7	0.39	1.30	20.9	117	1.44	0.149	0.140	7.7	0.25	2823	3668	235	62	C	M	0.0185	88.9	2.06	2175	9.2	53.9	1.25	94	13.0	5.6	0.13	11	14.6	0.7	0.02
40	48	4399	8.3	7.8	8.8	10.6	11.3	1.35	3.2	5.3	0.37	1.50	23.7	115	1.51	0.143	0.134	8.2	0.28	3027	3668	248	66	C	M	0.0252	110.8	2.30	2553	9.7	78.8	1.64	254	13.2	16.8	0.35	50	14.8	3.7	0.08
45	53	4018	9.1	8.6	9.6	11.4	12.2	1.44	3.4	5.9	0.36	1.71	26.1	114	1.58	0.138	0.130	8.6	0.32	3191	3668	256	69	C	M	0.0329	132.1	2.49	2726	10.2	103.4	1.95	479	13.5	35.2	0.66	137	15.0	11.2	0.21
50	58	3668	9.9	9.4	10.3	12.2	13.0	1.53	3.5	6.5	0.34	1.93	28.1	112	1.65	0.135	0.127	8.9	0.34	3318	3668	261	71	D	M	0.0415	152.4	2.62	2759	10.7	126.6	2.18	722	13.8	58.5	1.01	271	15.2	24.2	0.42
55	63	3350	10.6	10.1	11.0	12.9	13.8	1.61	3.7	7.0	0.34	2.15	29.8	111	1.73	0.134	0.126	9.1	0.36	3415	3668	263	72	D	M	0.0511	171.2	2.71	2705	11.2	148.1	2.35	944	14.1	84.1	1.33	432	15.5	42.1	0.67
60	68	3063	11.4	10.8	11.6	13.6	14.4	1.69	3.8	7.5	0.33	2.38	31.1	109	1.81	0.133	0.125	9.2	0.38	3485	3668	263	73	D	M	0.0615	188.4	2.76	2600	11.8	167.6	2.46	1123	14.4	109.7	1.61	597	15.7	63.4	0.93
65	73	2806	12.1	11.5	12.2	14.2	15.1	1.77	3.9	8.0	0.32	2.61	32.2	108	1.89	0.133	0.125	9.3	0.39	3534	3668	261	73	D	M	0.0727	203.9	2.79	2470	12.3	185.0	2.53	1253	14.8	134.0	1.83	746	16.0	86.0	1.18
70	78	2576	12.8	12.2	12.7	14.7	15.7	1.85	4.1	8.4	0.32	2.85	33.0	107	1.97	0.134	0.126	9.2	0.40	3565	3668	258	73	D	M	0.0845	217.8	2.79	2328	12.9	200.5	2.57	1336	15.1	155.9	1.99	869	16.3	108.6	1.39
75	83	2371	13.5	12.9	13.2	15.2	16.2	1.93	4.2	8.8	0.32	3.09	33.7	105	2.05	0.135	0.127	9.2	0.41	3583	3668	255	73	D	M	0.0970	230.1	2.77	2187	13.5	214.2	2.58	1381	15.5	175.5	2.11	964	16.7	130.1	1.56
80	88	2189	14.1	13.5	13.7	15.7	16.7	2.00	4.3	9.1	0.32	3.33	34.2	104	2.14	0.136	0.128	9.1	0.42	3590	3668	251	73	D	M	0.1101	241.0	2.73	2050	14.0	226.3	2.57	1397	15.9	192.6	2.18	1030	17.0	150.0	1.70
85	93	2026	14.7	14.1	14.1	16.2	17.2	2.08	4.5	9.5	0.32	3.57	34.6	103	2.22	0.137	0.129	9.0	0.42	3588	3668	246	72	D	M	0.1236	250.5	2.69	1920	14.6	236.7	2.54	1390	16.3	207.4	2.23	1072	17.3	167.9	1.80
90	98	1880	15.4	14.7	14.5	16.6	17.6	2.15	4.6	9.8	0.32	3.82	34.8	101	2.31	0.139	0.131	8.9	0.43	3579	3668	242	72	D	M	0.1376	258.7	2.64	1798	15.1	245.8	2.50	1366	16.8	220.0	2.24	1094	17.7	183.8	1.87
95	103	1751	16.0	15.3	14.9	17.0	18.0	2.21	4.7	10.0	0.31	4.06	35.0	100	2.39	0.141	0.133	8.8	0.43	3566	3668	237	71	D	M	0.1519	266.0	2.58	1687	15.7	253.8	2.46	1334	17.2	231.0	2.24	1100	18.1	197.8	1.92
100	108	1634	16.5	15.9	15.3	17.3	18.4	2.28	4.8	10.3	0.32	4.30	35.1	99	2.47	0.143	0.135	8.6	0.43	3549	3668	232	70	D	M	0.1665	272.1	2.52	1583	16.2	260.5	2.41	1293	17.6	240.2	2.22	1094	18.4	209.9	1.94
105	113	1530	17.1	16.4	15.6	17.7	18.7	2.34	5.0	10.5	0.32	4.55	35.2	98	2.56	0.145	0.137	8.5	0.43	3530	3668	227	70	C	M	0.1814	277.5	2.45	1490	16.7	266.4	2.35	1250	18.0	248.2	2.19	1079	18.8	220.5	1.95
110	118	1436	17.7	17.0	15.9	18.0	19.0	2.41	5.1	10.7	0.32	4.79	35.2	97	2.64	0.147	0.139	8.4	0.43	3508	3668	223	69	C	M	0.1964	282.0	2.39	1404	17.2	271.4	2.30	1204	18.4	254.8	2.16	1058	19.2	229.6	1.94
115	123	1352	18.2	17.5	16.2	18.3	19.4	2.47	5.2	10.9	0.32	5.03	35.1	95	2.72	0.149	0.141	8.2	0.43	3486	3668	219	68	C	M	0.2115	286.0	2.32	1326	17.7	275.8	2.24	1159	18.8	260.6	2.12	1034	19.5	237.6	1.93
120	128	1275	18.7	18.0	16.5	18.6	19.6	2.52	5.3	11.1	0.32	5.28	35.1	94	2.80	0.151	0.143	8.1	0.43	3463	3668	214	67	C	M	0.2267	289.1	2.26	1254	18.2	279.3	2.18	1113	19.2	265.2	2.07	1005	19.9	244.1	1.90
125	133	1206	19.2	18.5	16.8	18.9	19.9	2.58	5.4	11.3	0.32	5.52	35.0	93	2.88	0.153	0.145	8.0	0.43	3440	3668	210	67	C	M	0.2420	291.9	2.19	1188	18.7	282.4	2.12	1069	19.6	269.3	2.02	977	20.3	249.9	1.88
130	138	1144	19.7	19.0	17.1	19.1	20.2	2.64	5.5	11.4	0.32	5.75	34.9	92	2.96	0.155	0.147	7.9	0.42	3417	3668	206	66	C	M	0.2573	294.3	2.13	1129	19.2	285.1	2.06	1028	20.0	272.9	1.98	948	20.6	255.0	1.85
135	143	1087	20.2	19.5	17.3	19.3	20.4	2.69	5.6	11.5	0.32	5.99	34.8	91	3.03	0.157	0.149	7.7	0.42	3395	3668	203	65	C	M	0.2725	296.2	2.07	1075	19.6	287.3	2.01	988	20.4	275.7	1.93	918	21.0	259.2	1.81
140	148	1035	20.7	19.9	17.5	19.6	20.6	2.74	5.7	11.7	0.32	6.22	34.7	90	3.11	0.159	0.151	7.6	0.42	3373	3668	199	64	C	M	0.2876	297.7	2.01	1025	20.1	289.0	1.95	950	20.8	278.0	1.88	889	21.4	262.8	1.77
145	153	987	21.1	20.4	17.8	19.8	20.8	2.79	5.8	11.8	0.33	6.45	34.6	89	3.18	0.161	0.153	7.5	0.42	3352	3668	195	64	C	M	0.3026	298.7	1.95	978	20.5	290.3	1.90	914	21.2	279.8	1.83	860	21.7	265.6	1.73
150	158	944	21.6	20.8	18.0	20.0	21.0	2.84	5.9	11.8	0.33	6.68	34.4	88	3.25	0.163	0.155	7.4	0.42	3332	3668	192	63	C	M	0.3176	299.8	1.90	937	20.9	291.5	1.84	880	21.6	281.5	1.78	833	22.1	268.3	1.70
155	163	904	22.0	21.2	18.2	20.2	21.2	2.89	5.9	11.9	0.33	6.91	34.3	87	3.33	0.165	0.157	7.3	0.41	3313	3668	189	62	C	M	0.3323	300.4	1.84	898	21.3	292.4	1.79	849	22.0	282.7	1.73	807	22.4	270.4	1.66
160	168	867	22.4	21.6	18.4	20.4	21.4	2.94	6.0	12.0	0.33	7.14	34.2	86	3.40	0.167	0.159	7.2	0.41	3295	3668	186	62	C	M	0.3469	300.8	1.79	862	21.7	292.9	1.74	819	22.3	283.6	1.69	782	22.8	272.1	1.62
165	173	833	22.8	22.0	18.5	20.5	21.6	2.99	6.1	12.1	0.33	7.36	34.1	85	3.46	0.169	0.161	7.1	0.41	3277	3668	183	61	C	M	0.3613	301.0	1.74	828	22.1	293.3	1.69	790	22.7	284.2	1.64	757	23.1	273.4	1.58
170	178	802	23.2	22.4	18.7	20.7	21.7	3.03	6.2	12.1	0.33	7.58	34.0	85	3.53	0.171	0.162	7.0	0.41	3261	3668	181	61	C	M	0.3756	301.2	1.69	798	22.5	293.6	1.65	764	23.1	284.8	1.60	735	23.5	274.7	1.54
175	183	774	23.6	22.8	18.9	20.8	21.9	3.07	6.3	12.2	0.34	7.80	33.9	84	3.59	0.172	0.164	7.0	0.41	3247	3668	179	60	C	M	0.3897	301.6	1.65	771	22.9	294.1	1.61	741	23.4	285.5	1.56	714	23.8	275.9	1.51
180	188	747	24.0	23.2	19.0	21.0	22.1	3.12	6.3	12.2	0.34	8.01	33.8	83	3.66	0.174	0.166	6.9	0.40	3233	3668	176	60	C	M	0.4033	301.3	1.60	744	23.3	294.0	1.56	717	23.8	285.6	1.52	694	24.1	276.5	1.47
SI = 13 m Initial Density = 7500 stems/ha																																								
5	13	7407	1.2	1.2	2.0	2.5	2.6	0.69	1.4	0.5	0.75	0.37	0.9	195	1.16	0.460	0.441	0.8	0.01	977	3860	53	28	A	M	0.0001	0.9	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	7188	2.5	2.3	3.1	3.9	4.1	0.77	1.9	1.0	0.64	0.47	3.5	142	1.18	0.306	0.291	2.2	0.04	1316	3860	96	34	B	M	0.0008	5.5	0.30	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	6863	3.6	3.4	4.2	5.2	5.5	0.86	2.2	1.7	0.55	0.60	6.9	130	1.21	0.234	0.221	3.7	0.08	1684	3860	137	41	B	M	0.0022	15.1	0.65	2	8.1	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	6461	4.6	4.3	5.2	6.4	6.8	0.96	2.5	2.5	0.49	0.75	10.8	125	1.24	0.194	0.183	5.0	0.12	2047	3860	173	48	B	M	0.0046	29.5	1.05	138	8.2	1.7	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	6014	5.6	5.2	6.2	7.6	8.1	1.06	2.7	3.2	0.44	0.91	14.6	122	1.29	0.170	0.160	6.2	0.17	2382	3860	203	55	C	M	0.0079	47.8	1.44	743	8.4	11.4	0.34	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	38	5549	6.5	6.1	7.1	8.7	9.2	1.15	2.9	4.0	0.41	1.08	18.2	120	1.34	0.155	0.145	7.2	0.22	2677	3860	227	60	C	M	0.0124	68.6	1.80	1555	8.7	30.0	0.79	15	12.7	0.8	0.02	0	0.0	0.0	0.00
35	43	5089	7.3	6.9	8.0	9.7	10.3	1.24	3.0	4.7	0.38	1.27	21.5	118	1.40	0.145	0.136	7.9	0.26	2927	3860	245	65	C	M	0.0178	90.7	2.10	2216	9.1	53.6	1.24	82	12.9	4.8	0.11	9	14.5	0.6	0.01
40	48	4648	8.2	7.7	8.8	10.6	11.3	1.34	3.2	5.3	0.37	1.47	24.3	116	1.47	0.139	0.130	8.5	0.29	3131	3860	257	68	C	M	0.0243	113.0	2.35	2626	9.6	79.0	1.64	235	13.2	15.4	0.32	43	14.7	3.2	0.07
45	53	4237	9.0	8.5	9.5	11.4	12.2	1.42	3.3	5.9	0.35	1.67	26.7	114	1.54	0.135	0.126	8.9	0.32	3293	3860	265	71	D	M	0.0318	134.6	2.53	2821	10.1	104.1	1.96	458	13.4	33.3	0.63	124	14.9	10.0	0.19
50	58	3860	9.7	9.3	10.2	12.2	13.0	1.51	3.5	6.5	0.34	1.89	28.8	113	1.61	0.132	0.124	9.2	0.35	3417	3860	269	73	D	M	0.0402	155.1	2.67	2864	10.6	127.8	2.20	705	13.7	56.4	0.97	253	15.2	22.4	0.39
55	63	3518	10.5	10.0	10.9	12.9	13.8	1.60	3.6	7.0	0.33	2.11	30.4	111	1.69	0.131	0.123	9.4	0.37	3510	3860	271	74	D	M	0.0495	174.1	2.76	2811	11.1	149.7	2.37	936	14.0	82.3	1.30	414	15.4	39.9	0.63
60	68	3211	11.2	10.7	11.5	13.5	14.4	1.68	3.7	7.5	0.33	2.33	31.8	110	1.76	0.130	0.122	9.5	0.39	3577	3860	271	75	D	M	0.0596	191.4	2.81	2704	11.7	169.5	2.49	1125	14.3	108.4	1.59	581	15.7	60.9	0.89
65	73	2936	11.9	11.4	12.1	14.1	15.1	1.76	3.9	8.0	0.32	2.56	32.8	108	1.85	0.130	0.122	9.5	0.40	3622	3860	269	75	D	M	0.0705	207.0	2.83	2568	12.2	187.2	2.56	1264	14.7	133.1	1.82	736	15.9	83.7	1.14
70	78	2692	12.6	12.1	12.6	14.7	15.7	1.84	4.0	8.4	0.32	2.79	33.7	107	1.93	0.131	0.123	9.5	0.41	3650	3860	266	75	D	M	0.0821	221.0	2.83	2421	12.8	202.9	2.60	1355	15.1	155.6	1.99	866	16.3	106.6	1.36
75	83	2474	13.3	12.7	13.1	15.2	16.2	1.91	4.1	8.8	0.32	3.03	34.3	106	2.01	0.132	0.124	9.4	0.42	3664	3860	262	75	D	M	0.0943	233.3	2.81	2272	13.3	216.7	2.61	1407	15.4	175.7	2.11	967	16.6	128.6	1.55
80	88	2281	13.9	13.3	13.6	15.7	16.7	1.99	4.3	9.1	0.31	3.27	34.8	104	2.09	0.133	0.125	9.3	0.43	3667	3860	257	75	D	M	0.1071	244.3	2.77	2129	13.9	228.9	2.60	1426	15.8	193.3	2.19	1039	16.9	148.9	1.69
85	93	2108	14.6	14.0	14.0	16.2	17.2	2.06	4.4	9.4	0.31	3.51	35.2	103	2.18	0.135	0.127	9.2	0.43	3661	3860	252	74	D	M	0.1204	253.7	2.72	1992	14.4	239.4	2.57	1421	16.2	208.4	2.24	1085	17.2	167.2	1.79
90	98	1955	15.2	14.6	14.4	16.6	17.6	2.13	4.5	9.7	0.31	3.75	35.4	102	2.26	0.137	0.128	9.1	0.43	3650	3860	247	73	D	M	0.1341	262.1	2.67	1865	15.0	248.7	2.53	1401	16.6	221.5	2.26	1111	17.6	183.6	1.87
95	103	1818	15.8	15.1	14.8	17.0	18.0	2.19	4.7	10.0	0.31	3.99	35.6	101	2.35	0.138	0.130	9.0	0.44	3633	3860	242	73	D	M	0.1481	269.3	2.61	1748	15.5	256.6	2.49	1368	17.0	232.6	2.25	1119	17.9	197.9	1.92
100	108	1695	16.4	15.7	15.2	17.3	18.4	2.26	4.8	10.3	0.31	4.23	35.7	99	2.43	0.140	0.132	8.8	0.44	3613	3860	237	72	D	M	0.1624	275.3	2.55	1640	16.0	263.4	2.44	1327	17.5	242.0	2.24	1115	18.3	210.3	1.94
105	113	1586	16.9	16.3	15.5	17.7	18.7	2.32	4.9	10.5	0.31	4.47	35.7	98	2.51	0.142	0.134	8.7	0.44	3591	3860	233	71	D	M	0.1770	280.8	2.48	1542	16.6	269.4	2.38	1284	17.9	250.2	2.21	1102	18.7	221.3	1.96
110	118	1487	17.5	16.8	15.8	18.0	19.0	2.39	5.0	10.7	0.31	4.71	35.7	97	2.59	0.144	0.136	8.5	0.44	3567	3860	228	70	D	M	0.1918	285.2	2.41	1452	17.1	274.3	2.32	1237	18.3	256.9	2.17	1081	19.0	230.5	1.95
115	123	1398	18.0	17.3	16.2	18.3	19.4	2.45	5.1	10.9	0.32	4.95	35.6	96	2.67	0.146	0.138	8.4	0.43	3542	3860	223	69	C	M	0.2067	289.0	2.35	1369	17.6	278.5	2.26	1190	18.7	262.6	2.13	1056	19.4	238.5	1.94
120	128	1318	18.5	17.8	16.4	18.6	19.6	2.50	5.2	11.1	0.32	5.19	35.5	95	2.75	0.148	0.140	8.3	0.43	3516	3860	219	68	C	M	0.2217	292.2	2.28	1295	18.0	282.1	2.20	1144	19.1	267.5	2.09	1029	19.8	245.4	1.91
125	133	1246	19.0	18.3	16.7	18.8	19.9	2.56	5.3	11.2	0.32	5.43	35.5	94	2.83	0.151	0.142	8.1	0.43	3491	3860	214	68	C	M	0.2368	295.0	2.22	1227	18.5	285.3	2.14	1099	19.5	271.7	2.04	1000	20.1	251.4	1.89
130	138	1180	19.5	18.8	17.0	19.1	20.2	2.62	5.4	11.4	0.32	5.66	35.3	93	2.91	0.153	0.144	8.0	0.43	3466	3860	210	67	C	M	0.2518	297.1	2.15	1164	19.0	287.7	2.08	1055	19.9	275.0	1.99	970	20.5	256.4	1.86
135	143	1121	20.0	19.3	17.2	19.3	20.4	2.67	5.5	11.5	0.32	5.90	35.2	92	2.99	0.155	0.146	7.9	0.43	3441	3860	206	66	C	M	0.2668	299.1	2.09	1108	19.4	290.0	2.03	1015	20.3	278.0	1.94	940	20.9	260.8	1.82
140	148	1066	20.5	19.7	17.4	19.5	20.6	2.72	5.6	11.6	0.32	6.13	35.1	91	3.06	0.157	0.148	7.8	0.43	3418	3860	202	65	C	M	0.2817	300.3	2.03	1055	19.9	291.5	1.97	975	20.7	280.2	1.89	910	21.2	264.3	1.78
145	153	1017	20.9	20.2	17.7	19.7	20.8	2.77	5.7	11.7	0.32	6.36	35.0	90	3.14	0.159	0.150	7.6	0.42	3395	3860	199	65	C	M	0.2967	301.7	1.97	1008	20.3	293.0	1.91	938	21.1	282.2	1.84	881	21.6	267.5	1.75
150	158	971	21.4	20.6	17.9	19.9	21.0	2.82	5.8	11.8	0.33	6.59	34.8	89	3.21	0.161	0.153	7.5	0.42	3373	3860	196	64	C	M	0.3113	302.3	1.91	963	20.7	293.9	1.86	903	21.4	283.6	1.79	853	21.9	269.9	1.71
155	163	930	21.8	21.0	18.1	20.1	21.2	2.87	5.9	11.9	0.33	6.81	34.7	88	3.28	0.163	0.154	7.4	0.42	3352	3860	192	63	C	M	0.3260	303.2	1.86	923	21.2	294.9	1.81	871	21.8	285.0	1.75	826	22.3	272.2	1.67
160	168	891	22.2	21.5	18.3	20.3	21.4	2.92	6.0	12.0	0.33	7.04	34.6	87	3.35	0.165	0.156	7.3	0.42	3332	3860	189	63	C	M	0.3404	303.3	1.80	885	21.6	295.3	1.76	839	22.2	285.7	1.70	800	22.6	273.8	1.63
165	173	856	22.6	21.9	18.5	20.5	21.6	2.96	6.1	12.0	0.33	7.26	34.4	86	3.42	0.167	0.158	7.2	0.41	3313	3860	186	62	C	M	0.3547	303.6	1.75	851	22.0	295.7	1.71	810	22.5	286.5	1.65	775	23.0	275.2	1.59
170	178	824	23.0	22.3	18.6	20.7	21.7	3.01	6.1	12.1	0.33	7.47	34.3	85	3.48	0.169	0.160	7.2	0.41	3296	3860	184	62	C	M	0.3688	303.9	1.71	820	22.3	296.2	1.66	784	22.9	287.2	1.61	752	23.3	276.6	1.55
175	183	794	23.4	22.6	18.8	20.8	21.9	3.05	6.2	12.1	0.33	7.69	34.2	84	3.55	0.171	0.162	7.1	0.41	3280	3860	181	61	C	M	0.3827	303.9	1.66	790	22.7	296.3	1.62	758	23.2	287.5	1.57	730	23.6	277.5	1.52
180	188	766	23.8	23.0	18.9	21.0	22.1	3.10	6.3	12.2	0.34	7.90	34.1	83	3.61	0.172	0.164	7.0	0.41	3264	3860	179	61	C	M	0.3963	303.6	1.61	763	23.1	296.1	1.57	734	23.6	287.6	1.53	709	24.0	278.2	1.48

Table A51. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																									Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
		SI = 13 m Initial Density = 8000 stems/ha																																						
5	13	7898	1.2	1.1	2.0	2.5	2.6	0.69	1.4	0.5	0.75	0.37	0.9	198	1.13	0.446	0.427	0.8	0.01	1036	4048	56	29	A	M	0.0001	0.9	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	7657	2.4	2.3	3.1	3.9	4.1	0.77	1.8	1.0	0.63	0.47	3.6	143	1.14	0.296	0.282	2.3	0.04	1386	4048	101	36	B	M	0.0007	5.6	0.31	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	7300	3.5	3.3	4.2	5.2	5.5	0.86	2.2	1.7	0.55	0.59	7.1	131	1.17	0.227	0.214	3.8	0.08	1765	4048	143	43	B	M	0.0021	15.4	0.67	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	6861	4.5	4.3	5.2	6.4	6.8	0.95	2.4	2.5	0.49	0.73	11.1	126	1.21	0.188	0.177	5.2	0.13	2136	4048	181	50	C	M	0.0044	30.2	1.07	123	8.2	1.5	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	6373	5.5	5.1	6.2	7.6	8.1	1.05	2.6	3.2	0.44	0.89	15.0	123	1.25	0.165	0.155	6.4	0.18	2478	4048	211	57	C	M	0.0077	48.8	1.47	715	8.4	10.8	0.33	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	38	5868	6.4	6.0	7.1	8.6	9.2	1.14	2.8	4.0	0.41	1.07	18.7	121	1.31	0.151	0.141	7.4	0.22	2776	4048	236	63	C	M	0.0119	70.0	1.83	1551	8.7	29.3	0.77	12	12.7	0.6	0.02	0	0.0	0.0	0.00
35	43	5369	7.2	6.8	7.9	9.6	10.3	1.23	3.0	4.7	0.38	1.25	22.0	119	1.36	0.142	0.133	8.2	0.26	3027	4048	253	67	C	M	0.0172	92.4	2.14	2250	9.1	53.2	1.23	72	12.9	4.2	0.10	7	14.5	0.5	0.01
40	48	4894	8.0	7.6	8.7	10.6	11.3	1.32	3.1	5.3	0.36	1.44	24.9	117	1.43	0.135	0.127	8.8	0.30	3230	4048	266	71	D	M	0.0235	115.0	2.39	2693	9.5	79.0	1.64	217	13.1	14.2	0.29	37	14.7	2.7	0.06
45	53	4452	8.8	8.4	9.5	11.4	12.2	1.41	3.3	5.9	0.35	1.64	27.4	115	1.50	0.132	0.123	9.2	0.33	3390	4048	274	73	D	M	0.0308	136.9	2.58	2909	10.0	104.6	1.97	436	13.4	31.4	0.59	112	14.9	9.0	0.17
50	58	4048	9.6	9.1	10.2	12.2	13.0	1.50	3.4	6.5	0.34	1.85	29.4	114	1.57	0.129	0.121	9.5	0.36	3512	4048	278	75	D	M	0.0389	157.6	2.71	2962	10.5	128.8	2.21	687	13.6	54.4	0.94	236	15.1	20.7	0.36
55	63	3683	10.4	9.9	10.8	12.9	13.8	1.58	3.5	7.0	0.33	2.07	31.1	112	1.65	0.128	0.120	9.7	0.38	3602	4048	279	76	D	M	0.0480	176.7	2.80	2913	11.0	151.1	2.39	925	13.9	80.4	1.27	396	15.3	37.8	0.60
60	68	3356	11.1	10.6	11.5	13.5	14.4	1.66	3.7	7.5	0.32	2.29	32.4	110	1.73	0.128	0.119	9.7	0.40	3665	4048	278	77	D	M	0.0579	194.2	2.85	2804	11.6	171.2	2.51	1123	14.3	106.8	1.57	565	15.6	58.6	0.86
65	73	3065	11.8	11.3	12.0	14.1	15.1	1.74	3.8	7.9	0.32	2.51	33.5	109	1.81	0.128	0.120	9.8	0.41	3707	4048	276	77	D	M	0.0685	210.0	2.87	2664	12.1	189.2	2.59	1272	14.6	132.1	1.81	725	15.9	81.5	1.11
70	78	2805	12.5	11.9	12.6	14.7	15.7	1.82	4.0	8.4	0.32	2.74	34.3	108	1.89	0.129	0.120	9.7	0.42	3731	4048	272	77	D	M	0.0799	224.0	2.87	2510	12.7	205.1	2.62	1372	15.0	155.2	1.99	861	16.2	104.6	1.34
75	83	2575	13.1	12.6	13.0	15.2	16.2	1.89	4.1	8.7	0.31	2.98	34.9	106	1.97	0.130	0.122	9.6	0.43	3741	4048	268	77	D	M	0.0918	236.4	2.84	2356	13.2	219.1	2.63	1429	15.3	175.7	2.11	967	16.5	126.9	1.53
80	88	2371	13.8	13.2	13.5	15.7	16.7	1.97	4.2	9.1	0.31	3.21	35.4	105	2.05	0.131	0.123	9.5	0.43	3741	4048	263	76	D	M	0.1043	247.3	2.81	2206	13.8	231.4	2.62	1453	15.7	193.8	2.20	1045	16.8	147.6	1.67
85	93	2189	14.4	13.8	13.9	16.1	17.2	2.04	4.4	9.4	0.31	3.45	35.8	104	2.14	0.133	0.124	9.4	0.44	3732	4048	258	75	D	M	0.1173	256.8	2.76	2063	14.3	242.0	2.60	1452	16.1	209.3	2.25	1096	17.2	166.3	1.79
90	98	2028	15.0	14.4	14.4	16.5	17.6	2.11	4.5	9.7	0.31	3.69	36.0	102	2.22	0.134	0.126	9.3	0.44	3717	4048	253	75	D	M	0.1308	265.2	2.70	1931	14.8	251.3	2.56	1432	16.5	222.6	2.27	1126	17.5	183.1	1.87
95	103	1884	15.6	15.0	14.7	16.9	18.0	2.18	4.6	10.0	0.31	3.92	36.1	101	2.30	0.136	0.128	9.1	0.44	3697	4048	248	74	D	M	0.1445	272.3	2.64	1808	15.4	259.3	2.51	1400	16.9	234.0	2.27	1137	17.8	197.8	1.92
100	108	1755	16.2	15.6	15.1	17.3	18.4	2.24	4.7	10.2	0.31	4.16	36.2	100	2.39	0.138	0.130	9.0	0.44	3674	4048	242	73	D	M	0.1586	278.4	2.57	1695	15.9	266.1	2.46	1360	17.3	243.6	2.25	1135	18.2	210.6	1.95
105	113	1640	16.8	16.1	15.4	17.6	18.7	2.31	4.8	10.5	0.31	4.40	36.2	99	2.47	0.140	0.132	8.8	0.44	3649	4048	237	72	D	M	0.1730	283.7	2.51	1592	16.4	271.9	2.40	1316	17.7	251.9	2.23	1123	18.6	221.7	1.96
110	118	1537	17.3	16.6	15.8	18.0	19.0	2.37	5.0	10.7	0.31	4.64	36.2	98	2.55	0.142	0.134	8.7	0.44	3623	4048	232	71	D	M	0.1875	288.2	2.44	1499	16.9	277.0	2.34	1269	18.2	258.9	2.19	1103	18.9	231.3	1.96
115	123	1444	17.8	17.2	16.1	18.2	19.4	2.43	5.1	10.9	0.31	4.88	36.1	96	2.63	0.144	0.136	8.5	0.44	3595	4048	227	70	D	M	0.2021	291.9	2.37	1413	17.4	281.2	2.28	1221	18.6	264.7	2.15	1079	19.3	239.6	1.95
120	128	1360	18.4	17.7	16.4	18.5	19.6	2.49	5.2	11.1	0.31	5.11	36.0	95	2.71	0.146	0.138	8.4	0.44	3567	4048	223	70	C	M	0.2170	295.1	2.30	1335	17.9	284.7	2.22	1173	19.0	269.5	2.10	1051	19.7	246.6	1.92
125	133	1285	18.9	18.2	16.6	18.8	19.9	2.54	5.3	11.2	0.32	5.35	35.9	94	2.79	0.148	0.140	8.3	0.44	3540	4048	218	69	C	M	0.2318	297.8	2.24	1264	18.4	287.9	2.16	1127	19.4	273.8	2.06	1022	20.0	252.7	1.90
130	138	1216	19.4	18.6	16.9	19.0	20.2	2.60	5.4	11.4	0.32	5.58	35.8	93	2.87	0.151	0.142	8.1	0.44	3513	4048	214	68	C	M	0.2466	299.9	2.17	1199	18.8	290.3	2.10	1082	19.8	277.1	2.01	991	20.4	257.7	1.87
135	143	1154	19.8	19.1	17.1	19.3	20.4	2.65	5.5	11.5	0.32	5.81	35.6	92	2.94	0.153	0.144	8.0	0.43	3486	4048	210	67	C	M	0.2614	301.7	2.11	1140	19.3	292.4	2.04	1040	20.1	280.0	1.96	961	20.7	262.2	1.83
140	148	1097	20.3	19.6	17.4	19.5	20.6	2.70	5.6	11.6	0.32	6.04	35.5	91	3.02	0.155	0.146	7.9	0.43	3460	4048	206	66	C	M	0.2762	303.0	2.05	1085	19.7	294.0	1.98	999	20.5	282.3	1.91	930	21.1	265.8	1.79
145	153	1045	20.8	20.0	17.6	19.7	20.8	2.75	5.7	11.7	0.32	6.27	35.3	90	3.09	0.157	0.148	7.8	0.43	3436	4048	202	66	C	M	0.2909	304.0	1.98	1035	20.1	295.2	1.93	961	20.9	284.1	1.85	900	21.5	268.8	1.76
150	158	998	21.2	20.4	17.8	19.9	21.0	2.80	5.8	11.8	0.32	6.50	35.2	89	3.17	0.159	0.150	7.6	0.43	3412	4048	199	65	C	M	0.3055	304.9	1.93	989	20.6	296.3	1.87	925	21.3	285.7	1.81	872	21.8	271.5	1.72
155	163	955	21.6	20.9	18.0	20.1	21.2	2.85	5.8	11.9	0.33	6.72	35.1	88	3.24	0.161	0.152	7.5	0.42	3389	4048	195	64	C	M	0.3200	305.6	1.87	948	21.0	297.2	1.82	892	21.7	287.1	1.76	844	22.1	273.7	1.68
160	168	915	22.0	21.3	18.2	20.3	21.4	2.90	5.9	12.0	0.33	6.94	34.9	87	3.31	0.163	0.154	7.4	0.42	3368	4048	192	64	C	M	0.3343	305.9	1.82	909	21.4	297.7	1.77	859	22.0	287.9	1.71	818	22.5	275.5	1.64
165	173	878	22.5	21.7	18.4	20.5	21.6	2.94	6.0	12.0	0.33	7.16	34.8	86	3.37	0.165	0.156	7.3	0.42	3348	4048	189	63	C	M	0.3484	305.9	1.77	873	21.8	297.9	1.72	829	22.4	288.4	1.67	792	22.8	276.8	1.60
170	178	845	22.9	22.1	18.5	20.6	21.7	2.99	6.1	12.1	0.33	7.38	34.7	85	3.44	0.167	0.158	7.3	0.42	3329	4048	186	62	C	M	0.3624	306.2	1.72	840	22.2	298.4	1.67	802	22.7	289.2	1.62	769	23.2	278.3	1.56
175	183	813	23.2	22.5	18.7	20.8	21.9	3.03	6.2	12.1	0.33	7.59	34.5	84	3.51	0.169	0.160	7.2	0.41	3311	4048	184	62	C	M	0.3761	305.8	1.67	809	22.5	298.1	1.63	775	23.1	289.2	1.58	745	23.5	278.9	1.52
180	188	784	23.6	22.8	18.9	20.9	22.1	3.08	6.2	12.2	0.33	7.80	34.4	84	3.57	0.171	0.162	7.1	0.41	3295	4048	181	61	C	M	0.3898	305.6	1.62	780	22.9	297.9	1.58	750	23.4	289.3	1.54	723	23.8	279.5	1.49
		SI = 13 m Initial Density = 9000 stems/ha																																						
5	13	8879	1.2	1.1	2.0	2.5	2.6	0.69	1.4	0.5	0.74	0.37	1.0	204	1.06	0.421	0.403	0.9	0.01	1153	4417	61	33	B	M	0.0001	1.0	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	8594	2.4	2.2	3.1	3.8	4.1	0.76	1.8	1.0	0.63	0.46	3.8	146	1.08	0.280	0.266	2.5	0.04	1525	4417	109	40	B	M	0.0007	5.9	0.32	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	8172	3.4	3.2	4.1	5.2	5.5	0.85	2.1	1.7	0.54	0.58	7.5	133	1.11	0.215	0.202	4.1	0.09	1923	4417	155	47	B	M	0.0020	16.0	0.69	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	7655	4.4	4.1	5.1	6.4	6.8	0.94	2.4	2.5	0.48	0.71	11.7	128	1.14	0.179	0.168	5.6	0.14	2310	4417	195	55	C	M	0.0041	31.3	1.11	97	8.2	1.2	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	7084	5.3	5.0	6.1	7.6	8.1	1.03	2.5	3.2	0.43	0.87	15.8	124	1.19	0.157	0.147	6.8	0.19	2662	4417	227	61	C	M	0.0072	50.7	1.53	658	8.3	9.6	0.29	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	38	6497	6.2	5.8	7.0	8.6	9.2	1.12	2.7	3.9	0.40	1.03	19.6	122	1.24	0.144	0.134	7.9	0.23	2966	4417	252	67	C	M	0.0112	72.5	1.90	1531	8.6	27.9	0.73	8	12.7	0.4	0.01	0	0.0	0.0	0.00
35	43	5922	7.0	6.6	7.9	9.6	10.3	1.21	2.9	4.6	0.37	1.21	23.0	120	1.30	0.135	0.126	8.7	0.28	3218	4417	270	71	D	M	0.0161	95.6	2.22	2303	9.0	52.2	1.21	56	12.8	3.3	0.08	5	14.4	0.3	0.01
40	48	5378	7.8	7.4	8.7	10.5	11.3	1.30	3.0	5.3	0.36	1.39	26.0	118	1.36	0.129	0.121	9.3	0.32	3420	4417	283	75	D	M	0.0221	118.7	2.46	2811	9.4	78.9	1.64	185	13.0	11.9	0.25	27	14.7	2.0	0.04
45	53	4874	8.6	8.2	9.4	11.4	12.2	1.39	3.2	5.9	0.34	1.59	28.5	116	1.43	0.126	0.118	9.7	0.35	3576	4417	290	77	D	M	0.0289	141.1	2.65	3069	9.8	105.4	1.98	395	13.3	28.0	0.53	91	14.8	7.2	0.14
50	58	4417	9.4	8.9	10.1	12.1	13.0	1.47	3.3	6.4	0.33	1.79	30.6	115	1.50	0.124	0.116	10.0	0.38	3693	4417	294	79	D	M	0.0367	162.2	2.79	3146	10.3	130.5	2.24	649	13.5	50.5	0.87	206	15.0	17.8	0.31
55	63	4006	10.1	9.6	10.7	12.8	13.8	1.55	3.4	7.0	0.33	2.00	32.3	113	1.58	0.123	0.115	10.1	0.40	3776	4417	294	80	D	M	0.0454	181.7	2.88	3104	10.8	153.5	2.43	900	13.8	76.5	1.21	360	15.3	33.8	0.54
60	68	3639	10.8	10.3	11.3	13.5	14.4	1.63	3.6	7.4	0.32	2.21	33.6	112	1.66	0.123	0.115	10.2	0.41	3832	4417	293	81	D	M	0.0548	199.3	2.92	2993	11.4	174.2	2.56	1115	14.1	103.6	1.52	533	15.5	54.1	0.79
65	73	3314	11.5	11.0	11.9	14.1	15.1	1.71	3.7	7.9	0.32	2.43	34.7	110	1.74	0.123	0.115	10.2	0.43	3866	4417	290	81	D	M	0.0649	215.2	2.94	2845	11.9	192.7	2.63	1282	14.5	129.8	1.77	700	15.8	76.9	1.05
70	78	3026	12.2	11.7	12.4	14.6	15.7	1.79	3.9	8.3	0.31	2.66	35.5	109	1.82	0.124	0.116	10.1	0.44	3883	4417	286	80	D	M	0.0758	229.4	2.94	2682	12.4	209.0	2.67	1397	14.8	153.8	1.97	846	16.1	100.4	1.28
75	83	2771	12.9	12.3	12.9	15.2	16.2	1.86	4.0	8.7	0.31	2.88	36.1	107	1.90	0.125	0.117	10.1	0.44	3886	4417	281	80	D	M	0.0873	241.9	2.91	2515	13.0	223.2	2.68	1467	15.2	175.3	2.11	964	16.4	123.3	1.48
80	88	2546	13.5	12.9	13.4	15.6	16.7	1.94	4.1	9.0	0.31	3.11	36.5	106	1.98	0.127	0.119	9.9	0.45	3879	4417	275	79	D	M	0.0993	252.9	2.87	2354	13.5	235.7	2.67	1500	15.6	194.2	2.20	1053	16.7	144.8	1.64
85	93	2346	14.1	13.5	13.8	16.1	17.2	2.01	4.3	9.4	0.31	3.34	36.8	104	2.06	0.128	0.120	9.8	0.45	3864	4417	270	78	D	M	0.1118	262.4	2.82	2199	14.1	246.5	2.65	1505	15.9	210.4	2.26	1113	17.0	164.3	1.76
90	98	2169	14.7	14.1	14.2	16.5	17.6	2.08	4.4	9.7	0.31	3.57	37.0	103	2.15	0.130	0.122	9.6	0.46	3843	4417	264	77	D	M	0.1248	270.7	2.76	2056	14.6	255.9	2.61	1490	16.3	224.4	2.29	1150	17.3	181.8	1.85
95	103	2012	15.3	14.7	14.6	16.9	18.0	2.14	4.5	9.9	0.31	3.81	37.1	102	2.23	0.132	0.124	9.5	0.46	3818	4417	258	77	D	M	0.1381	277.9	2.69	1924	15.1	264.0	2.56	1460	16.7	236.3	2.29	1168	17.7	197.3	1.91
100	108	1871	15.9	15.3	15.0	17.2	18.4	2.21	4.6	10.2	0.31	4.04	37.2	101	2.31	0.134	0.126	9.3	0.46	3789	4417	252	76	D	M	0.1517	283.9	2.62	1802	15.6	270.8	2.50	1421	17.1	246.4	2.28	1169	18.0	210.6	1.95
105	113	1746	16.5	15.8	15.3	17.6	18.7	2.27	4.7	10.4	0.31	4.27	37.2	99	2.39	0.136	0.128	9.2	0.46	3759	4417	246	75	D	M	0.1656	289.2	2.56	1691	16.1	276.8	2.45	1376	17.5	254.9	2.25	1160	18.4	222.3	1.96
110	118	1634	17.0	16.3	15.6	17.9	19.0	2.33	4.9	10.6	0.31	4.50	37.1	98	2.47	0.138	0.130	9.0	0.45	3727	4417	241	74	D	M	0.1797	293.7	2.49	1590	16.6	281.9	2.39	1328	17.9	262.2	2.22	1143	18.7	232.4	1.97
115	123	1533	17.5	16.9	15.9	18.2	19.4	2.39	5.0	10.8	0.31	4.74	37.0	97	2.55	0.140	0.132	8.8	0.45	3695	4417	236	73	D	M	0.1939	297.3	2.41	1497	17.1	286.1	2.32	1279	18.3	268.2	2.18	1120	19.1	241.1	1.96
120	128	1442	18.0	17.4	16.2	18.5	19.6	2.45	5.1	11.0	0.31	4.97	36.9	96	2.63	0.143	0.134	8.7	0.45	3663	4417	231	72	D	M	0.2083	300.4	2.34	1413	17.6	289.6	2.26	1229	18.7	273.2	2.13	1092	19.4	248.4	1.94
125	133	1360	18.5	17.8	16.5	18.7	19.9	2.51	5.2	11.2	0.31	5.20	36.7	95	2.71	0.145	0.136	8.5	0.45	3631	4417	226	71	D	M	0.2227	302.9	2.27	1336	18.1	292.5	2.20	1181	19.1	277.5	2.08	1063	19.8	254.7	1.91
130	138	1286	19.0	18.3	16.7	19.0	20.2	2.56	5.3	11.3	0.31	5.43	36.6	94	2.79	0.147	0.138	8.4	0.45	3600	4417	221	70	C	M	0.2372	305.0	2.21	1266	18.5	295.0	2.14	1134	19.5	281.0	2.03	1032	20.1	260.1	1.88
135	143	1218	19.5	18.8	17.0	19.2	20.4	2.61	5.4	11.4	0.32	5.66	36.4	93	2.87	0.149	0.140	8.2	0.44	3570	4417	217	69	C	M	0.2516	306.5	2.14	1201	19.0	296.8	2.07	1089	19.9	283.7	1.98	1000	20.5	264.5	1.85
140	148	1157	20.0	19.2	17.2	19.5	20.6	2.67	5.5	11.6	0.32	5.88	36.2	92	2.94	0.151	0.143	8.1	0.44	3541	4417	212	68	C	M	0.2660	307.8	2.08	1143	19.4	298.5	2.01	1046	20.3	286.1	1.93	969	20.8	268.4	1.81
145	153	1101	20.4	19.7	17.4	19.7	20.8	2.72	5.6	11.7	0.32	6.11	36.1	91	3.01	0.153	0.145	8.0	0.44	3512	4417	208	67	C	M	0.2805	308.8	2.02	1089	19.8	299.6	1.96	1006	20.6	288.0	1.88	938	21.2	271.5	1.77
150	158	1050	20.9	20.1	17.6	19.9	21.0	2.77	5.7	11.8	0.32	6.33	35.9	90	3.09	0.155	0.147	7.9	0.44	3486	4417	205	66	C	M	0.2947	309.4	1.96	1040	20.3	300.6	1.90	967	21.0	289.4	1.83	908	21.5	274.2	1.73
155	163	1004	21.3	20.5	17.8	20.1	21.2	2.81	5.7	11.9	0.32	6.55	35.8	89	3.16	0.157	0.149	7.7	0.43	3460	4417	201	66	C	M	0.3089	310.1	1.90	995	20.7	301.5	1.85	932	21.4	290.8	1.78	879	21.9	276.5	1.69
160	168	961	21.7	21.0	18.0	20.2	21.4	2.86	5.8	11.9	0.32	6.77	35.6	88	3.23	0.159	0.151	7.6	0.43	3436	4417	198	65	C	M	0.3229	310.3	1.85	954	21.1	301.9	1.80	898	21.7	291.6	1.73	851	22.2	278.3	1.66
165	173	921	22.1	21.4	18.2	20.4	21.6	2.91	5.9	12.0	0.33	6.98	35.4	87	3.30	0.161	0.153	7.5	0.43	3413	4417	194	64	C	M	0.3368	310.2	1.79	915	21.5	301.9	1.74	866	22.1	292.1	1.69	824	22.6	279.6	1.61
170	178	885	22.5	21.7	18.4	20.6	21.7	2.95	6.0	12.0	0.33	7.20	35.3	86	3.36	0.163	0.155	7.4	0.42	3391	4417	191	64	C	M	0.3505	310.2	1.74	880	21.8	302.1	1.70	836	22.4	292.6	1.64	799	22.9	280.9	1.58
175	183	851	22.9	22.1	18.5	20.7	21.9	3.00	6.1	12.1	0.33	7.41	35.1	85	3.43	0.165	0.157	7.3	0.42	3371	4417	188	63	C	M	0.3640	309.8	1.69	846	22.2	301.9	1.65	808	22.8	292.6	1.60	775	23.2	281.7	1.54
180	188	820	23.3	22.5	18.7	20.9	22.1	3.04	6.1	12.1	0.33	7.62	34.9	84	3.49	0.167	0.158	7.2	0.42	3352	4417	186	62	C	M	0.3774	309.5	1.64	816	22.6	301.7	1.60	782	23.1	292.7	1.56	752	23.5	282.4	1.50

Table A52. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 13 m Initial Density = 10000 stems/ha																																								
5	13	9860	1.1	1.1	2.0	2.5	2.6	0.68	1.4	0.5	0.73	0.37	1.0	210	1.01	0.400	0.382	0.9	0.01	1269	4775	66	36	B	M	0.0001	1.0	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	9528	2.3	2.1	3.0	3.8	4.1	0.76	1.8	1.0	0.62	0.45	4.0	149	1.02	0.266	0.253	2.6	0.05	1661	4775	118	43	B	M	0.0006	6.1	0.34	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	9040	3.3	3.1	4.1	5.1	5.5	0.84	2.1	1.7	0.53	0.57	7.9	135	1.05	0.204	0.192	4.3	0.09	2077	4775	166	51	C	M	0.0018	16.6	0.72	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	8442	4.3	4.0	5.1	6.4	6.8	0.93	2.3	2.5	0.47	0.70	12.2	129	1.09	0.170	0.160	5.9	0.14	2478	4775	208	59	C	M	0.0038	32.4	1.15	76	8.1	0.9	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	7787	5.2	4.9	6.0	7.5	8.1	1.02	2.5	3.2	0.43	0.84	16.5	126	1.13	0.150	0.141	7.2	0.20	2839	4775	242	66	C	M	0.0067	52.3	1.58	602	8.3	8.6	0.26	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	38	7117	6.0	5.7	6.9	8.6	9.2	1.11	2.6	3.9	0.39	1.00	20.4	123	1.19	0.138	0.128	8.3	0.25	3147	4775	268	71	D	M	0.0105	74.8	1.96	1500	8.5	26.4	0.69	6	12.6	0.3	0.01	0	0.0	0.0	0.00
35	43	6464	6.9	6.5	7.8	9.6	10.3	1.20	2.8	4.6	0.37	1.17	24.0	121	1.24	0.130	0.121	9.1	0.29	3400	4775	286	76	D	M	0.0152	98.4	2.28	2336	8.9	51.1	1.18	43	12.8	2.5	0.06	3	14.3	0.2	0.00
40	48	5850	7.7	7.3	8.6	10.5	11.3	1.28	2.9	5.3	0.35	1.35	27.0	119	1.31	0.124	0.116	9.8	0.33	3599	4775	298	79	D	M	0.0209	122.0	2.53	2908	9.3	78.5	1.63	157	13.0	10.0	0.21	20	14.6	1.4	0.03
45	53	5286	8.4	8.0	9.3	11.3	12.2	1.37	3.1	5.8	0.34	1.54	29.6	117	1.38	0.121	0.113	10.2	0.36	3750	4775	306	81	D	M	0.0274	144.8	2.72	3211	9.7	105.8	1.99	356	13.2	24.9	0.47	74	14.8	5.8	0.11
50	58	4775	9.2	8.7	10.0	12.1	13.0	1.45	3.2	6.4	0.33	1.74	31.7	116	1.45	0.120	0.111	10.4	0.39	3861	4775	309	83	D	M	0.0348	166.2	2.86	3312	10.2	131.6	2.26	610	13.5	46.7	0.80	179	15.0	15.2	0.26
55	63	4319	9.9	9.4	10.6	12.8	13.8	1.53	3.4	6.9	0.32	1.94	33.4	114	1.52	0.119	0.111	10.6	0.41	3938	4775	309	84	D	M	0.0431	186.0	2.95	3281	10.7	155.3	2.46	870	13.7	72.7	1.15	327	15.2	30.2	0.48
60	68	3914	10.6	10.1	11.2	13.5	14.4	1.61	3.5	7.4	0.32	2.15	34.7	112	1.60	0.119	0.111	10.6	0.43	3987	4775	307	84	D	M	0.0521	203.9	2.99	3170	11.2	176.7	2.59	1101	14.0	100.2	1.47	500	15.4	49.9	0.73
65	73	3556	11.3	10.8	11.8	14.1	15.1	1.69	3.6	7.8	0.31	2.36	35.7	111	1.68	0.119	0.111	10.6	0.44	4014	4775	303	84	D	M	0.0619	220.0	3.01	3017	11.7	195.6	2.67	1283	14.4	127.0	1.74	672	15.7	72.4	0.99
70	78	3240	12.0	11.4	12.3	14.6	15.7	1.76	3.8	8.3	0.31	2.58	36.5	109	1.76	0.120	0.112	10.6	0.45	4024	4775	298	83	D	M	0.0723	234.2	3.00	2844	12.3	212.2	2.72	1414	14.7	152.0	1.94	828	16.0	96.2	1.23
75	83	2961	12.6	12.1	12.8	15.1	16.2	1.84	3.9	8.6	0.31	2.80	37.1	108	1.84	0.121	0.113	10.4	0.46	4021	4775	292	83	D	M	0.0834	246.8	2.97	2667	12.8	226.8	2.73	1497	15.0	174.4	2.10	956	16.2	119.5	1.44
80	88	2715	13.3	12.7	13.2	15.6	16.7	1.91	4.0	9.0	0.31	3.02	37.5	107	1.92	0.123	0.115	10.3	0.46	4008	4775	286	82	D	M	0.0949	257.7	2.92	2494	13.3	239.5	2.72	1539	15.4	194.0	2.20	1055	16.5	141.6	1.61
85	93	2498	13.9	13.3	13.7	16.0	17.2	1.98	4.2	9.3	0.30	3.25	37.8	105	2.00	0.125	0.117	10.1	0.47	3986	4775	280	81	D	M	0.1070	267.3	2.87	2330	13.8	250.5	2.69	1552	15.8	211.0	2.27	1124	16.9	161.9	1.74
90	98	2306	14.5	13.9	14.1	16.5	17.6	2.05	4.3	9.6	0.30	3.47	38.0	104	2.08	0.127	0.118	10.0	0.47	3960	4775	274	80	D	M	0.1195	275.6	2.81	2176	14.4	260.0	2.65	1541	16.2	225.6	2.30	1169	17.2	180.1	1.83
95	103	2135	15.1	14.4	14.5	16.8	18.0	2.11	4.4	9.9	0.30	3.70	38.1	103	2.16	0.128	0.120	9.8	0.47	3929	4775	267	79	D	M	0.1324	282.7	2.74	2034	14.9	268.1	2.60	1514	16.5	238.0	2.31	1192	17.5	196.1	1.90
100	108	1983	15.6	15.0	14.8	17.2	18.4	2.18	4.5	10.1	0.30	3.93	38.1	101	2.25	0.131	0.122	9.6	0.47	3895	4775	261	78	D	M	0.1456	288.8	2.67	1904	15.4	275.0	2.54	1476	16.9	248.5	2.30	1199	17.8	210.2	1.94
105	113	1848	16.2	15.5	15.1	17.5	18.7	2.24	4.6	10.4	0.31	4.16	38.0	100	2.33	0.133	0.124	9.5	0.47	3860	4775	255	77	D	M	0.1591	294.0	2.60	1785	15.9	281.0	2.48	1431	17.3	257.3	2.27	1193	18.2	222.4	1.97
110	118	1727	16.7	16.1	15.5	17.9	19.0	2.30	4.8	10.6	0.31	4.38	37.9	99	2.41	0.135	0.126	9.3	0.47	3824	4775	249	76	D	M	0.1728	298.4	2.53	1676	16.4	286.0	2.42	1383	17.7	264.9	2.24	1178	18.5	232.9	1.97
115	123	1618	17.2	16.6	15.8	18.2	19.4	2.36	4.9	10.8	0.31	4.61	37.8	98	2.49	0.137	0.128	9.1	0.46	3788	4775	243	75	D	M	0.1866	301.9	2.45	1577	16.9	290.2	2.36	1332	18.1	271.0	2.20	1156	18.9	241.9	1.96
120	128	1520	17.8	17.1	16.0	18.4	19.6	2.42	5.0	11.0	0.31	4.84	37.6	97	2.56	0.139	0.131	8.9	0.46	3751	4775	238	74	D	M	0.2006	304.9	2.38	1487	17.3	293.6	2.29	1280	18.5	276.1	2.15	1129	19.2	249.5	1.95
125	133	1432	18.3	17.6	16.3	18.7	19.9	2.47	5.1	11.1	0.31	5.06	37.5	96	2.64	0.141	0.133	8.8	0.46	3716	4775	233	73	D	M	0.2147	307.4	2.31	1405	17.8	296.6	2.23	1230	18.9	280.5	2.11	1099	19.6	256.1	1.92
130	138	1353	18.7	18.0	16.6	18.9	20.2	2.53	5.2	11.3	0.31	5.29	37.3	95	2.72	0.144	0.135	8.6	0.46	3681	4775	228	72	D	M	0.2288	309.5	2.24	1330	18.3	299.1	2.16	1182	19.3	284.2	2.06	1069	19.9	261.8	1.89
135	143	1281	19.2	18.5	16.8	19.2	20.4	2.58	5.3	11.4	0.31	5.51	37.1	93	2.79	0.146	0.137	8.5	0.45	3647	4775	223	71	D	M	0.2429	311.1	2.17	1262	18.7	301.0	2.10	1136	19.6	287.2	2.01	1037	20.3	266.6	1.86
140	148	1215	19.7	19.0	17.0	19.4	20.6	2.63	5.4	11.5	0.31	5.74	36.9	92	2.87	0.148	0.139	8.3	0.45	3615	4775	219	70	C	M	0.2570	312.2	2.11	1199	19.1	302.5	2.04	1091	20.0	289.5	1.95	1004	20.6	270.4	1.83
145	153	1155	20.1	19.4	17.2	19.6	20.8	2.68	5.5	11.6	0.32	5.96	36.7	91	2.94	0.150	0.141	8.2	0.45	3583	4775	214	69	C	M	0.2710	313.0	2.04	1142	19.5	303.6	1.98	1048	20.4	291.3	1.90	973	21.0	273.7	1.79
150	158	1101	20.6	19.8	17.5	19.8	21.0	2.73	5.6	11.7	0.32	6.17	36.6	90	3.01	0.152	0.143	8.1	0.44	3554	4775	210	68	C	M	0.2850	313.8	1.98	1090	20.0	304.6	1.93	1008	20.8	292.9	1.85	942	21.3	276.6	1.75
155	163	1051	21.0	20.2	17.7	20.0	21.2	2.78	5.7	11.8	0.32	6.39	36.4	89	3.08	0.154	0.145	7.9	0.44	3525	4775	206	67	C	M	0.2989	314.1	1.93	1041	20.4	305.2	1.87	970	21.1	294.0	1.80	912	21.6	278.9	1.71
160	168	1005	21.4	20.7	17.8	20.2	21.4	2.83	5.7	11.9	0.32	6.61	36.2	88	3.15	0.156	0.147	7.8	0.44	3498	4775	203	66	C	M	0.3126	314.2	1.87	997	20.8	305.5	1.82	935	21.5	294.8	1.75	883	22.0	280.7	1.67
165	173	963	21.8	21.1	18.0	20.3	21.6	2.87	5.8	12.0	0.32	6.82	36.0	88	3.22	0.158	0.149	7.7	0.43	3473	4775	199	66	C	M	0.3263	314.2	1.81	956	21.2	305.7	1.77	901	21.8	295.4	1.71	855	22.3	282.2	1.63
170	178	924	22.2	21.4	18.2	20.5	21.7	2.92	5.9	12.0	0.33	7.03	35.8	87	3.29	0.160	0.151	7.6	0.43	3449	4775	196	65	C	M	0.3397	313.9	1.76	918	21.5	305.6	1.72	870	22.2	295.7	1.66	829	22.6	283.3	1.59
175	183	888	22.6	21.8	18.4	20.7	21.9	2.96	6.0	12.1	0.33	7.24	35.6	86	3.36	0.162	0.153	7.5	0.43	3426	4775	193	64	C	M	0.3530	313.5	1.71	883	21.9	305.4	1.67	840	22.5	295.8	1.62	803	23.0	284.1	1.55
180	188	855	23.0	22.2	18.5	20.8	22.1	3.00	6.1	12.1	0.33	7.45	35.5	85	3.42	0.164	0.155	7.4	0.43	3405	4775	190	64	C	M	0.3662	313.1	1.66	850	22.3	305.1	1.62	812	22.9	295.8	1.57	779	23.3	284.8	1.51
SI = 13 m Initial Density = 15000 stems/ha																																								
5	13	14755	1.0	0.9	1.9	2.5	2.6	0.68	1.3	0.5	0.70	0.36	1.1	236	0.82	0.328	0.313	1.1	0.02	1838	6459	91	53	C	M	0.0001	1.1	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	14172	2.0	1.9	2.9	3.8	4.1	0.74	1.6	1.1	0.59	0.43	4.7	161	0.84	0.220	0.207	3.3	0.06	2315	6459	156	61	C	M	0.0005	6.9	0.38	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	13322	3.0	2.8	3.9	5.1	5.5	0.81	1.9	1.7	0.50	0.53	9.3	144	0.87	0.169	0.159	5.4	0.11	2801	6459	217	70	C	M	0.0014	18.8	0.81	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	12300	3.9	3.6	4.9	6.3	6.8	0.89	2.1	2.5	0.44	0.64	14.4	137	0.90	0.142	0.132	7.3	0.17	3250	6459	268	78	D	M	0.0030	36.6	1.30	24	8.0	0.3	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	11201	4.7	4.4	5.8	7.5	8.1	0.97	2.2	3.2	0.40	0.76	19.4	132	0.94	0.126	0.117	8.9	0.24	3637	6459	308	85	D	M	0.0052	58.7	1.77	343	8.1	4.5	0.14	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	38	10103	5.5	5.2	6.7	8.5	9.2	1.05	2.4	3.9	0.37	0.90	23.9	129	0.99	0.116	0.108	10.2	0.29	3951	6459	337	91	D	M	0.0083	83.4	2.19	1206	8.3	19.2	0.50	1	12.5	0.0	0.00	0	0.0	0.0	0.00
35	43	9057	6.3	5.9	7.5	9.5	10.3	1.13	2.5	4.5	0.35	1.04	27.8	126	1.05	0.110	0.102	11.1	0.35	4194	6459	356	94	D	M	0.0120	109.1	2.53	2298	8.6	44.0	1.02	12	12.6	0.7	0.02	0	0.0	0.0	0.00
40	48	8094	7.0	6.6	8.2	10.4	11.3	1.21	2.6	5.1	0.33	1.20	31.1	124	1.11	0.107	0.099	11.8	0.39	4373	6459	367	97	D	M	0.0166	134.5	2.79	3225	8.9	73.9	1.53	67	12.8	4.1	0.09	5	14.4	0.3	0.01
45	53	7228	7.7	7.3	8.9	11.2	12.2	1.29	2.8	5.7	0.32	1.36	33.9	122	1.18	0.105	0.097	12.2	0.42	4498	6459	372	99	D	M	0.0220	158.8	2.99	3712	9.3	103.9	1.95	200	13.0	13.4	0.25	26	14.6	2.0	0.04
50	58	6459	8.4	8.0	9.6	12.0	13.0	1.37	2.9	6.2	0.31	1.54	36.0	120	1.24	0.104	0.096	12.4	0.45	4578	6459	373	99	D	M	0.0281	181.4	3.12	3937	9.7	132.8	2.28	415	13.2	30.2	0.52	84	14.8	6.9	0.12
55	63	5784	9.1	8.7	10.2	12.7	13.8	1.44	3.0	6.7	0.31	1.72	37.7	118	1.31	0.104	0.096	12.5	0.47	4622	6459	370	99	D	M	0.0349	202.0	3.20	3974	10.1	159.3	2.52	680	13.4	53.5	0.85	192	14.9	16.8	0.27
60	68	5194	9.8	9.3	10.8	13.3	14.4	1.52	3.2	7.2	0.30	1.90	39.0	116	1.39	0.104	0.096	12.5	0.49	4639	6459	365	99	D	M	0.0425	220.6	3.24	3887	10.6	183.0	2.69	951	13.7	80.8	1.19	341	15.1	32.1	0.47
65	73	4680	10.4	9.9	11.3	13.9	15.1	1.59	3.3	7.6	0.30	2.09	40.0	115	1.46	0.105	0.097	12.4	0.50	4634	6459	358	98	D	M	0.0507	237.1	3.24	3728	11.1	204.0	2.79	1240	13.9	112.2	1.53	515	15.4	51.9	0.71
70	78	4232	11.1	10.6	11.8	14.5	15.7	1.66	3.4	8.0	0.30	2.28	40.7	113	1.54	0.106	0.098	12.2	0.51	4614	6459	350	97	D	M	0.0595	251.8	3.22	3531	11.6	222.3	2.84	1433	14.2	140.0	1.79	692	15.6	74.7	0.96
75	83	3841	11.7	11.2	12.3	15.0	16.2	1.73	3.6	8.4	0.29	2.48	41.2	111	1.61	0.108	0.100	12.1	0.52	4581	6459	342	95	D	M	0.0689	264.6	3.18	3319	12.0	238.1	2.86	1573	14.5	165.6	1.99	854	15.8	98.8	1.19
80	88	3499	12.3	11.7	12.7	15.4	16.7	1.80	3.7	8.7	0.29	2.68	41.5	110	1.69	0.109	0.101	11.8	0.52	4540	6459	333	94	D	M	0.0788	275.7	3.13	3126	12.5	252.0	2.86	1665	14.8	188.5	2.14	994	16.1	122.6	1.39
85	93	3199	12.9	12.3	13.1	15.9	17.2	1.87	3.8	9.1	0.29	2.88	41.7	108	1.77	0.111	0.103	11.6	0.52	4493	6459	324	92	D	M	0.0892	285.3	3.06	2899	13.0	263.6	2.83	1712	15.2	208.5	2.24	1103	16.4	145.3	1.56
90	98	2936	13.5	12.9	13.5	16.3	17.6	1.93	3.9	9.4	0.29	3.09	41.8	107	1.85	0.113	0.105	11.4	0.52	4441	6459	316	91	D	M	0.1000	293.5	2.99	2707	13.5	273.6	2.79	1730	15.5	225.8	2.30	1215	16.6	168.2	1.71
95	103	2705	14.0	13.4	13.9	16.7	18.0	1.99	4.1	9.6	0.29	3.30	41.7	106	1.92	0.115	0.107	11.1	0.52	4387	6459	307	89	D	M	0.1111	300.6	2.91	2525	14.0	282.2	2.74	1720	15.8	240.5	2.33	1267	16.9	186.9	1.81
100	108	2500	14.6	14.0	14.2	17.0	18.4	2.06	4.2	9.9	0.29	3.50	41.6	104	2.00	0.118	0.109	10.9	0.52	4332	6459	299	88	D	M	0.1226	306.5	2.83	2360	14.4	289.5	2.68	1694	16.2	252.9	2.34	1297	17.2	203.4	1.88
105	113	2318	15.1	14.5	14.5	17.3	18.7	2.12	4.3	10.1	0.29	3.71	41.5	103	2.08	0.120	0.111	10.7	0.52	4277	6459	291	86	D	M	0.1344	311.5	2.75	2206	14.9	295.6	2.61	1654	16.5	263.3	2.33	1310	17.5	217.9	1.93
110	118	2156	15.6	15.0	14.8	17.7	19.0	2.17	4.4	10.3	0.29	3.92	41.3	102	2.15	0.122	0.113	10.4	0.51	4222	6459	283	84	D	M	0.1464	315.7	2.67	2068	15.4	300.7	2.54	1608	16.9	272.1	2.30	1309	17.8	230.5	1.95
115	123	2012	16.1	15.5	15.1	18.0	19.4	2.23	4.5	10.5	0.30	4.13	41.0	101	2.23	0.124	0.115	10.2	0.51	4167	6459	276	83	D	M	0.1586	319.1	2.59	1940	15.8	304.9	2.48	1555	17.3	279.4	2.27	1296	18.1	241.3	1.96
120	128	1882	16.6	16.0	15.4	18.2	19.6	2.29	4.6	10.7	0.30	4.33	40.8	100	2.31	0.126	0.117	10.0	0.50	4114	6459	269	82	D	M	0.1710	321.9	2.51	1824	16.3	308.4	2.41	1501	17.6	285.4	2.23	1277	18.4	250.5	1.95
125	133	1766	17.1	16.4	15.6	18.5	19.9	2.34	4.7	10.9	0.30	4.54	40.5	98	2.38	0.129	0.120	9.8	0.50	4063	6459	262	80	D	M	0.1835	324.0	2.43	1718	16.7	311.2	2.34	1445	18.0	290.4	2.18	1251	18.8	258.4	1.94
130	138	1661	17.6	16.9	15.9	18.7	20.2	2.39	4.8	11.0	0.30	4.75	40.2	97	2.45	0.131	0.122	9.6	0.50	4013	6459	256	79	D	M	0.1961	325.7	2.36	1623	17.2	313.5	2.27	1390	18.3	294.4	2.13	1221	19.1	265.1	1.92
135	143	1567	18.0	17.3	16.1	19.0	20.4	2.45	4.9	11.2	0.30	4.96	39.9	96	2.53	0.133	0.124	9.4	0.49	3965	6459	250	78	D	M	0.2087	327.0	2.28	1533	17.6	315.3	2.20	1335	18.7	297.7	2.08	1187	19.4	270.8	1.89
140	148	1481	18.5	17.8	16.3	19.2	20.6	2.50	5.0	11.3	0.30	5.16	39.7	95	2.60	0.135	0.126	9.2	0.49	3918	6459	244	76	D	M	0.2213	327.8	2.21	1454	18.0	316.6	2.14	1284	19.0	300.3	2.03	1155	19.7	275.5	1.86
145	153	1403	18.9	18.2	16.6	19.4	20.8	2.55	5.1	11.4	0.31	5.37	39.4	94	2.67	0.138	0.128	9.1	0.48	3874	6459	239	75	D	M	0.2341	328.4	2.14	1380	18.4	317.5	2.07	1233	19.4	302.3	1.97	1121	20.0	279.5	1.82
150	158	1332	19.3	18.6	16.8	19.6	21.0	2.59	5.2	11.5	0.31	5.57	39.1	93	2.74	0.140	0.130	8.9	0.48	3832	6459	234	74	D	M	0.2467	328.6	2.08	1311	18.8	318.1	2.01	1185	19.7	303.9	1.92	1086	20.4	282.8	1.79
155	163	1267	19.8	19.0	16.9	19.8	21.2	2.64	5.3	11.6	0.31	5.77	38.8	92	2.81	0.142	0.132	8.7	0.47	3792	6459	229	73	D	M	0.2594	328.6	2.01	1250	19.2	318.5	1.95	1140	20.1	305.0	1.87	1052	20.7	285.5	1.75
160	168	1208	20.2	19.4	17.1	19.9	21.4	2.69	5.4	11.7	0.31	5.97	38.5	91	2.88	0.144	0.134	8.6	0.47	3754	6459	224	72	D	M	0.2719	328.4	1.95	1192	19.6	318.5	1.89	1097	20.4	305.8	1.82	1014	21.0	287.3	1.71
165	173	1153	20.6	19.8	17.3	20.1	21.6	2.73	5.5	11.8	0.31	6.17	38.3	90	2.95	0.146	0.136	8.4	0.46	3717	6459	220	71	D	M	0.2845	328.0	1.89	1141	20.0	318.4	1.84	1056	20.8	306.3	1.77	983	21.3	289.1	1.67
170	178	1103	21.0	20.2	17.5	20.3	21.7	2.78	5.6	11.8	0.32	6.37	38.0	89	3.01	0.148	0.138	8.3	0.46	3683	6459	216	70	D	M	0.2969	327.5	1.84	1094	20.3	318.1	1.79	1019	21.1	306.5	1.72	954	21.6	290.4	1.63
175	183	1057	21.3	20.6	17.6	20.4	21.9	2.82	5.6	11.9	0.32	6.57	37.8	88	3.08	0.151	0.140	8.2	0.46	3650	6459	212	69	C	M	0.3092	326.8	1.78	1047	20.7	317.6	1.73	981	21.4	306.5	1.67	923	21.9	291.5	1.59
180	188	1015	21.7	20.9	17.8	20.6	22.1	2.86	5.7	11.9	0.32	6.76	37.6	87	3.14	0.153	0.142	8.1	0.45	3620	6459	209	69	C	M	0.3212	326.0	1.73	1005	21.1	317.1	1.69	946	21.7	306.3	1.63	894	22.2	292.2	1.55

Table A53. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 13 m Initial Density = 20000 stems/ha																																								
5	13	19639	0.9	0.8	1.9	2.5	2.6	0.67	1.2	0.5	0.68	0.36	1.2	258	0.71	0.286	0.271	1.3	0.02	2393	8019	113	70	C	M	0.0001	1.1	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	18781	1.9	1.7	2.9	3.8	4.1	0.73	1.5	1.1	0.57	0.42	5.2	170	0.73	0.192	0.180	3.8	0.06	2937	8019	191	78	D	M	0.0004	7.4	0.41	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	17538	2.8	2.6	3.8	5.1	5.5	0.79	1.7	1.8	0.48	0.50	10.5	151	0.76	0.148	0.138	6.3	0.13	3471	8019	262	88	D	M	0.0012	20.4	0.88	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	16060	3.6	3.4	4.7	6.3	6.8	0.86	1.9	2.4	0.43	0.60	16.1	142	0.79	0.125	0.116	8.5	0.20	3947	8019	320	96	D	M	0.0025	39.5	1.40	7	7.9	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	14493	4.4	4.1	5.6	7.4	8.1	0.94	2.0	3.1	0.39	0.71	21.6	137	0.83	0.112	0.103	10.4	0.27	4340	8019	364	103	D	M	0.0044	63.2	1.91	193	8.0	2.4	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	38	12952	5.1	4.8	6.5	8.5	9.2	1.01	2.2	3.8	0.36	0.83	26.5	133	0.88	0.103	0.095	11.7	0.33	4645	8019	395	107	D	M	0.0069	89.4	2.34	930	8.2	13.7	0.36	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	43	11508	5.8	5.5	7.2	9.5	10.3	1.09	2.3	4.4	0.34	0.96	30.8	130	0.93	0.098	0.091	12.7	0.39	4868	8019	414	111	D	M	0.0101	116.4	2.70	2100	8.4	36.7	0.85	3	12.5	0.2	0.00	0	0.0	0.0	0.00
40	48	10198	6.5	6.2	8.0	10.4	11.3	1.16	2.4	5.0	0.32	1.10	34.3	128	0.99	0.096	0.088	13.4	0.43	5020	8019	424	112	D	M	0.0140	142.9	2.97	3252	8.6	67.1	1.39	28	12.7	1.7	0.04	1	14.4	0.1	0.00
45	53	9036	7.2	6.8	8.6	11.2	12.2	1.23	2.6	5.6	0.31	1.25	37.1	125	1.05	0.094	0.086	13.8	0.47	5115	8019	427	113	D	M	0.0186	168.1	3.16	3947	9.0	98.7	1.86	111	12.9	7.2	0.14	9	14.5	0.7	0.01
50	58	8019	7.9	7.5	9.3	11.9	13.0	1.31	2.7	6.1	0.30	1.41	39.3	123	1.12	0.094	0.086	14.0	0.50	5163	8019	426	113	D	M	0.0239	191.3	3.29	4332	9.4	129.7	2.23	278	13.0	19.4	0.33	40	14.6	3.2	0.06
55	63	7135	8.6	8.1	9.8	12.6	13.8	1.38	2.8	6.6	0.30	1.57	41.0	121	1.18	0.094	0.086	14.0	0.52	5176	8019	420	112	D	M	0.0298	212.5	3.36	4467	9.8	158.4	2.51	516	13.2	38.9	0.62	111	14.8	9.4	0.15
60	68	6370	9.2	8.7	10.4	13.2	14.4	1.45	3.0	7.0	0.29	1.74	42.3	119	1.25	0.095	0.087	13.9	0.54	5163	8019	412	111	D	M	0.0363	231.5	3.40	4435	10.2	184.1	2.70	792	13.5	64.1	0.94	228	15.0	20.6	0.30
65	73	5709	9.8	9.3	10.9	13.8	15.1	1.52	3.1	7.4	0.29	1.91	43.2	117	1.32	0.096	0.088	13.8	0.55	5130	8019	403	109	D	M	0.0435	248.3	3.39	4292	10.6	206.8	2.83	1115	13.6	95.4	1.30	384	15.1	37.0	0.51
70	78	5137	10.4	9.9	11.4	14.4	15.7	1.59	3.2	7.8	0.29	2.09	43.9	115	1.40	0.097	0.089	13.6	0.56	5082	8019	393	107	D	M	0.0512	263.1	3.37	4092	11.1	226.5	2.90	1356	13.9	124.5	1.59	560	15.4	57.5	0.74
75	83	4642	11.0	10.5	11.8	14.9	16.2	1.66	3.3	8.2	0.29	2.27	44.3	114	1.47	0.099	0.091	13.3	0.56	5025	8019	382	105	D	M	0.0595	276.1	3.32	3864	11.5	243.5	2.93	1546	14.2	152.2	1.83	737	15.6	80.5	0.97
80	88	4211	11.6	11.1	12.3	15.3	16.7	1.72	3.5	8.5	0.28	2.45	44.5	112	1.54	0.101	0.092	13.1	0.56	4960	8019	371	103	D	M	0.0682	287.3	3.26	3650	11.9	258.4	2.93	1682	14.5	177.5	2.01	899	15.8	104.4	1.18
85	93	3836	12.2	11.6	12.7	15.7	17.2	1.78	3.6	8.8	0.28	2.64	44.6	111	1.61	0.103	0.094	12.8	0.56	4892	8019	360	101	D	M	0.0774	296.9	3.19	3390	12.4	270.6	2.90	1773	14.8	200.1	2.15	1038	16.0	128.1	1.38
90	98	3509	12.7	12.2	13.0	16.1	17.6	1.85	3.7	9.1	0.28	2.83	44.6	109	1.69	0.105	0.096	12.5	0.56	4820	8019	350	99	D	M	0.0869	305.1	3.11	3162	12.9	281.3	2.87	1820	15.1	219.7	2.24	1182	16.2	153.0	1.56
95	103	3221	13.3	12.7	13.4	16.5	18.0	1.91	3.8	9.4	0.28	3.02	44.5	108	1.76	0.107	0.098	12.2	0.56	4748	8019	339	97	D	M	0.0969	312.1	3.03	2953	13.3	290.3	2.81	1839	15.4	236.6	2.29	1267	16.5	173.5	1.68
100	108	2967	13.8	13.2	13.7	16.9	18.4	1.97	3.9	9.7	0.29	3.21	44.3	107	1.84	0.109	0.100	11.9	0.56	4676	8019	329	95	D	M	0.1072	318.0	2.94	2756	13.8	297.9	2.75	1830	15.7	250.9	2.32	1322	16.8	192.0	1.78
105	113	2743	14.3	13.7	14.0	17.2	18.7	2.03	4.1	9.9	0.29	3.40	44.0	105	1.91	0.111	0.102	11.6	0.55	4604	8019	320	93	D	M	0.1178	323.0	2.85	2577	14.2	304.3	2.69	1805	16.0	263.0	2.32	1357	17.0	208.4	1.84
110	118	2544	14.8	14.2	14.3	17.5	19.0	2.08	4.2	10.1	0.29	3.59	43.8	104	1.98	0.113	0.104	11.4	0.55	4534	8019	311	91	D	M	0.1285	327.0	2.77	2410	14.7	309.6	2.62	1766	16.3	273.2	2.31	1374	17.3	222.8	1.89
115	123	2367	15.3	14.7	14.6	17.8	19.4	2.14	4.3	10.3	0.29	3.79	43.4	103	2.06	0.116	0.106	11.1	0.54	4466	8019	302	90	D	M	0.1395	330.3	2.68	2259	15.1	313.9	2.55	1718	16.7	281.6	2.29	1375	17.6	235.4	1.91
120	128	2209	15.8	15.1	14.9	18.1	19.6	2.19	4.4	10.5	0.29	3.98	43.1	102	2.13	0.118	0.108	10.9	0.54	4399	8019	294	88	D	M	0.1507	332.9	2.60	2121	15.5	317.5	2.48	1665	17.0	288.6	2.25	1366	17.9	246.2	1.92
125	133	2067	16.2	15.6	15.1	18.3	19.9	2.24	4.5	10.7	0.29	4.17	42.8	101	2.20	0.120	0.110	10.6	0.53	4335	8019	286	86	D	M	0.1621	335.0	2.52	1995	15.9	320.4	2.41	1609	17.3	294.4	2.21	1348	18.2	255.4	1.92
130	138	1940	16.7	16.0	15.3	18.6	20.2	2.30	4.6	10.8	0.29	4.37	42.4	99	2.27	0.122	0.113	10.4	0.53	4273	8019	279	85	D	M	0.1735	336.5	2.44	1880	16.4	322.6	2.34	1552	17.7	299.0	2.16	1324	18.5	263.3	1.91
135	143	1825	17.1	16.5	15.6	18.8	20.4	2.35	4.7	11.0	0.30	4.56	42.1	98	2.34	0.125	0.115	10.2	0.52	4214	8019	272	83	D	M	0.1850	337.6	2.36	1774	16.8	324.3	2.27	1494	18.0	302.8	2.12	1294	18.8	270.0	1.89
140	148	1721	17.6	16.9	15.8	19.0	20.6	2.40	4.8	11.1	0.30	4.75	41.7	97	2.41	0.127	0.117	10.0	0.51	4158	8019	265	82	D	M	0.1966	338.3	2.28	1677	17.2	325.6	2.20	1436	18.3	305.9	2.06	1261	19.1	275.6	1.86
145	153	1626	18.0	17.3	16.0	19.2	20.8	2.44	4.9	11.2	0.30	4.94	41.4	96	2.48	0.129	0.119	9.8	0.51	4103	8019	259	80	D	M	0.2082	338.6	2.21	1592	17.6	326.5	2.13	1384	18.7	308.2	2.01	1230	19.4	280.4	1.83
150	158	1541	18.4	17.7	16.2	19.4	21.0	2.49	5.0	11.3	0.30	5.14	41.0	95	2.55	0.131	0.121	9.6	0.50	4052	8019	253	79	D	M	0.2198	338.7	2.14	1511	17.9	327.0	2.07	1331	19.0	310.0	1.96	1196	19.7	284.3	1.80
155	163	1462	18.8	18.1	16.4	19.6	21.2	2.54	5.1	11.4	0.30	5.33	40.7	94	2.62	0.134	0.123	9.4	0.50	4002	8019	248	78	D	M	0.2315	338.5	2.07	1435	18.3	327.2	2.01	1279	19.3	311.3	1.91	1159	20.0	287.5	1.76
160	168	1391	19.2	18.5	16.5	19.8	21.4	2.58	5.1	11.5	0.31	5.52	40.4	93	2.68	0.136	0.125	9.2	0.49	3956	8019	242	77	D	M	0.2430	338.0	2.01	1369	18.7	327.1	1.95	1232	19.7	312.2	1.86	1126	20.3	290.2	1.73
165	173	1325	19.6	18.9	16.7	19.9	21.6	2.62	5.2	11.6	0.31	5.70	40.0	92	2.75	0.138	0.127	9.0	0.49	3911	8019	237	76	D	M	0.2546	337.4	1.95	1306	19.1	326.9	1.89	1185	20.0	312.8	1.81	1085	20.6	291.8	1.69
170	178	1265	20.0	19.3	16.9	20.1	21.7	2.67	5.3	11.6	0.31	5.89	39.7	91	2.81	0.140	0.129	8.9	0.48	3869	8019	232	75	D	M	0.2662	336.7	1.89	1250	19.4	326.4	1.83	1144	20.3	313.1	1.76	1055	20.9	293.5	1.65
175	183	1209	20.4	19.6	17.0	20.2	21.9	2.71	5.4	11.7	0.31	6.08	39.4	90	2.88	0.142	0.131	8.7	0.48	3829	8019	228	74	D	M	0.2777	335.7	1.83	1195	19.8	325.8	1.78	1101	20.6	313.1	1.71	1022	21.2	294.9	1.61
180	188	1158	20.7	20.0	17.2	20.4	22.1	2.75	5.5	11.7	0.31	6.26	39.1	89	2.94	0.144	0.133	8.6	0.47	3791	8019	224	73	D	M	0.2890	334.7	1.78	1146	20.1	325.0	1.73	1063	20.9	312.9	1.66	992	21.5	295.8	1.57
SI = 13 m Initial Density = 30000 stems/ha																																								
5	13	29387	0.8	0.7	1.8	2.5	2.6	0.67	1.1	0.6	0.66	0.35	1.3	296	0.58	0.235	0.221	1.5	0.02	3478	10911	155	103	D	M	0.0000	1.2	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	27927	1.7	1.5	2.7	3.8	4.1	0.71	1.4	1.1	0.54	0.40	6.0	185	0.60	0.158	0.148	4.7	0.08	4122	10911	253	112	D	M	0.0003	8.2	0.45	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	25831	2.5	2.3	3.6	5.1	5.5	0.77	1.5	1.7	0.46	0.47	12.2	161	0.62	0.123	0.114	7.8	0.15	4713	10911	340	121	D	M	0.0009	22.5	0.97	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	23381	3.2	3.0	4.5	6.3	6.8	0.83	1.7	2.4	0.40	0.55	18.8	150	0.65	0.104	0.096	10.5	0.24	5205	10911	410	129	D	M	0.0019	43.5	1.54	1	7.8	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	20837	3.9	3.7	5.3	7.4	8.1	0.89	1.8	3.1	0.36	0.64	25.0	144	0.69	0.094	0.086	12.6	0.32	5580	10911	460	134	D	M	0.0033	69.2	2.09	57	7.9	0.7	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	38	18388	4.6	4.3	6.1	8.4	9.2	0.96	1.9	3.7	0.34	0.74	30.5	140	0.74	0.088	0.080	14.2	0.39	5843	10911	493	137	D	M	0.0053	97.2	2.55	505	8.0	6.8	0.18	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	43	16142	5.3	5.0	6.9	9.4	10.3	1.03	2.1	4.3	0.32	0.86	35.1	136	0.79	0.084	0.076	15.3	0.45	6009	10911	511	138	D	M	0.0078	125.8	2.92	1582	8.1	24.4	0.57	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	48	14147	5.9	5.6	7.5	10.3	11.3	1.09	2.2	4.8	0.31	0.98	38.9	133	0.84	0.082	0.075	16.0	0.50	6098	10911	518	138	D	M	0.0109	153.6	3.19	2960	8.3	52.8	1.10	5	12.6	0.3	0.01	0	0.0	0.0	0.00
45	53	12409	6.6	6.2	8.2	11.1	12.2	1.16	2.3	5.3	0.30	1.10	41.8	130	0.90	0.081	0.074	16.3	0.54	6128	10911	517	137	D	M	0.0145	179.7	3.38	3981	8.6	85.1	1.60	33	12.7	2.1	0.04	1	14.3	0.1	0.00
50	58	10911	7.2	6.8	8.8	11.8	13.0	1.23	2.4	5.8	0.29	1.24	44.1	127	0.96	0.081	0.074	16.5	0.57	6113	10911	511	135	D	M	0.0187	203.7	3.50	4672	8.9	118.4	2.04	118	12.8	7.9	0.14	9	14.5	0.7	0.01
55	63	9629	7.8	7.4	9.3	12.5	13.8	1.29	2.5	6.3	0.28	1.38	45.8	125	1.02	0.082	0.074	16.4	0.59	6067	10911	501	133	D	M	0.0234	225.3	3.57	5042	9.3	150.1	2.38	279	13.0	20.0	0.32	36	14.6	3.0	0.05
60	68	8533	8.4	7.9	9.8	13.1	14.4	1.36	2.7	6.7	0.28	1.52	47.0	123	1.08	0.083	0.075	16.2	0.61	5998	10911	489	130	D	M	0.0287	244.7	3.59	5161	9.6	178.8	2.62	512	13.2	38.9	0.57	98	14.7	8.5	0.12
65	73	7597	9.0	8.5	10.3	13.7	15.1	1.42	2.8	7.1	0.28	1.67	47.9	121	1.15	0.084	0.076	16.0	0.62	5914	10911	475	127	D	M	0.0344	261.7	3.58	5107	10.0	204.3	2.79	834	13.3	66.3	0.91	204	14.9	18.4	0.25
70	78	6794	9.5	9.1	10.8	14.2	15.7	1.49	2.9	7.5	0.28	1.83	48.4	119	1.21	0.086	0.077	15.7	0.62	5820	10911	461	124	D	M	0.0407	276.7	3.54	4943	10.4	226.4	2.90	1114	13.5	94.4	1.21	345	15.1	33.1	0.42
75	83	6105	10.1	9.6	11.2	14.7	16.2	1.55	3.0	7.8	0.27	1.99	48.7	117	1.28	0.087	0.079	15.3	0.63	5720	10911	446	121	D	M	0.0475	289.7	3.48	4715	10.8	245.4	2.95	1367	13.7	123.2	1.48	511	15.2	51.8	0.62
80	88	5511	10.6	10.1	11.6	15.1	16.7	1.61	3.1	8.2	0.27	2.15	48.8	116	1.35	0.089	0.081	15.0	0.63	5616	10911	432	118	D	M	0.0546	300.9	3.41	4458	11.2	261.7	2.97	1577	14.0	151.0	1.71	685	15.4	73.3	0.83
85	93	4997	11.1	10.6	11.9	15.5	17.2	1.67	3.3	8.5	0.27	2.31	48.8	114	1.41	0.091	0.082	14.6	0.62	5512	10911	418	115	D	M	0.0621	310.5	3.33	4191	11.6	275.5	2.96	1738	14.2	176.8	1.90	890	15.5	98.9	1.06
90	98	4549	11.7	11.1	12.3	15.9	17.6	1.73	3.4	8.8	0.27	2.47	48.6	113	1.48	0.093	0.084	14.2	0.62	5408	10911	404	113	D	M	0.0701	318.7	3.25	3928	12.0	287.2	2.93	1853	14.5	200.0	2.04	1042	15.8	122.1	1.24
95	103	4159	12.2	11.6	12.6	16.3	18.0	1.79	3.5	9.0	0.27	2.64	48.4	111	1.55	0.095	0.086	13.9	0.62	5305	10911	391	110	D	M	0.0783	325.6	3.16	3672	12.4	297.1	2.88	1922	14.8	220.4	2.14	1165	16.0	144.4	1.40
100	108	3817	12.7	12.1	12.9	16.6	18.4	1.84	3.6	9.3	0.28	2.81	48.1	110	1.62	0.097	0.088	13.5	0.61	5205	10911	378	107	D	M	0.0868	331.5	3.07	3433	12.8	305.5	2.82	1960	15.0	238.1	2.20	1267	16.2	165.2	1.53
105	113	3515	13.1	12.6	13.2	17.0	18.7	1.90	3.7	9.5	0.28	2.98	47.7	109	1.69	0.099	0.090	13.2	0.60	5108	10911	366	105	D	M	0.0957	336.3	2.97	3212	13.2	312.4	2.76	1971	15.3	253.1	2.24	1343	16.4	184.3	1.63
110	118	3249	13.6	13.0	13.5	17.3	19.0	1.95	3.8	9.7	0.28	3.15	47.3	107	1.75	0.102	0.092	12.8	0.60	5013	10911	355	102	D	M	0.1047	340.2	2.88	3004	13.6	318.1	2.69	1957	15.6	265.9	2.25	1395	16.7	201.5	1.71
115	123	3012	14.1	13.5	13.8	17.5	19.4	2.00	3.9	9.9	0.28	3.32	46.9	106	1.82	0.104	0.094	12.5	0.59	4923	10911	344	100	D	M	0.1140	343.4	2.79	2812	14.0	322.9	2.62	1927	15.9	276.7	2.25	1427	16.9	216.7	1.76
120	128	2801	14.5	13.9	14.0	17.8	19.6	2.05	4.0	10.1	0.28	3.49	46.5	105	1.89	0.106	0.096	12.2	0.58	4836	10911	334	98	D	M	0.1235	345.8	2.70	2641	14.4	326.7	2.55	1890	16.2	285.7	2.23	1446	17.2	230.1	1.80
125	133	2613	15.0	14.4	14.2	18.1	19.9	2.10	4.1	10.3	0.28	3.66	46.0	104	1.96	0.108	0.098	11.9	0.58	4752	10911	324	96	D	M	0.1331	347.7	2.61	2482	14.8	329.8	2.48	1842	16.5	293.1	2.20	1450	17.5	241.8	1.82
130	138	2444	15.4	14.8	14.5	18.3	20.2	2.15	4.2	10.4	0.28	3.84	45.6	102	2.02	0.111	0.100	11.6	0.57	4672	10911	315	94	D	M	0.1428	349.1	2.53	2333	15.2	332.2	2.40	1788	16.8	299.3	2.17	1440	17.7	251.9	1.82
135	143	2292	15.8	15.2	14.7	18.5	20.4	2.20	4.3	10.6	0.29	4.01	45.1	101	2.09	0.113	0.102	11.3	0.56	4596	10911	307	92	D	M	0.1527	350.0	2.44	2199	15.6	334.0	2.33	1731	17.1	304.3	2.13	1425	18.0	260.6	1.82
140	148	2155	16.2	15.6	14.9	18.7	20.6	2.25	4.4	10.7	0.29	4.18	44.7	100	2.15	0.115	0.104	11.1	0.55	4523	10911	299	90	D	M	0.1626	350.5	2.37	2078	16.0	335.3	2.26	1674	17.4	308.3	2.08	1403	18.2	268.0	1.81
145	153	2031	16.7	16.0	15.1	18.9	20.8	2.29	4.5	10.8	0.29	4.35	44.2	99	2.22	0.117	0.106	10.8	0.55	4453	10911	291	88	D	M	0.1726	350.6	2.29	1967	16.3	336.1	2.19	1617	17.7	311.5	2.03	1377	18.5	274.3	1.79
150	158	1918	17.1	16.4	15.3	19.1	21.0	2.34	4.6	10.9	0.29	4.53	43.8	98	2.28	0.119	0.109	10.6	0.54	4387	10911	284	87	D	M	0.1827	350.5	2.22	1863	16.7	336.6	2.13	1560	18.0	314.0	1.99	1347	18.8	279.6	1.77
155	163	1815	17.4	16.8	15.4	19.3	21.2	2.38	4.7	11.0	0.29	4.70	43.4	97	2.35	0.122	0.111	10.4	0.53	4324	10911	277	85	D	M	0.1929	350.1	2.15	1768	17.0	336.8	2.06	1505	18.3	315.9	1.94	1316	19.0	284.0	1.74
160	168	1721	17.8	17.1	15.6	19.5	21.4	2.42	4.8	11.1	0.30	4.87	43.0	96	2.41	0.124	0.113	10.2	0.53	4264	10911	271	84	D	M	0.2030	349.4	2.08	1681	17.4	336.7	2.00	1450	18.6	317.3	1.89	1283	19.3	287.7	1.71
165	173	1635	18.2	17.5	15.8	19.6	21.6	2.47	4.9	11.2	0.30	5.04	42.6	95	2.47	0.126	0.115	10.0	0.52	4207	10911	264	82	D	M	0.2132	348.6	2.01	1599	17.7	336.3	1.94	1397	18.9	318.2	1.84	1238	19.6	290.1	1.68
170	178	1557	18.6	17.9	15.9	19.8	21.7	2.51	5.0	11.3	0.30	5.21	42.2	94	2.53	0.128	0.117	9.8	0.51	4153	10911	259	81	D	M	0.2232	347.5	1.95	1526	18.1	335.7	1.88	1348	19.1	318.7	1.79	1206	19.9	292.6	1.64
175	183	1484	18.9	18.2	16.1	19.9	21.9	2.55	5.0	11.4	0.30	5.38	41.8	93	2.60	0.130	0.119	9.6	0.51	4101	10911	253	80	D	M	0.2334	346.4	1.89	1459	18.4	334.9	1.83	1301	19.4	318.9	1.74	1173	20.1	294.6	1.61
180	188	1418	19.3	18.6	16.2	20.1	22.1	2.59	5.1	11.4	0.30	5.55	41.4	92	2.66	0.132	0.120	9.4	0.50	4052	10911	248	79	D	M	0.2434	345.1	1.83	1395	18.8	334.0	1.78	1254	19.7	318.9	1.69	1140	20.4	296.2	1.57

Table A54. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume) N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	Util. std. = 8/6 N	D	V/ha	Mai	Util. std. = 13/7 N	D	V/ha	Mai	Util. std = 15/10 N	D	V/ha	Mai
		SI = 13 m Initial Density = 50000 stems/ha																																						
5	13	48828	0.6	0.6	1.7	2.5	2.6	0.66	1.0	0.6	0.62	0.34	1.4	362	0.45	0.183	0.172	1.8	0.02	5591	16174	231	168	D	M	0.0000	1.2	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	46032	1.4	1.3	2.6	3.8	4.1	0.70	1.2	1.1	0.50	0.38	7.0	208	0.47	0.124	0.115	5.9	0.10	6358	16174	361	176	D	M	0.0002	9.0	0.50	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	42065	2.1	2.0	3.4	5.0	5.5	0.74	1.3	1.7	0.43	0.44	14.5	176	0.49	0.097	0.089	10.0	0.19	6980	16174	473	183	D	M	0.0006	25.0	1.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	37526	2.7	2.6	4.2	6.2	6.8	0.79	1.5	2.3	0.37	0.50	22.3	162	0.52	0.083	0.076	13.4	0.29	7425	16174	558	187	D	M	0.0013	48.0	1.70	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	32932	3.4	3.2	5.0	7.3	8.1	0.85	1.6	2.9	0.34	0.57	29.5	154	0.55	0.075	0.068	16.1	0.39	7699	16174	615	188	D	M	0.0023	75.8	2.29	5	7.8	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	38	28624	4.0	3.7	5.7	8.3	9.2	0.90	1.7	3.5	0.32	0.65	35.8	148	0.59	0.071	0.064	17.9	0.47	7831	16174	648	187	D	M	0.0037	105.6	2.77	130	7.8	1.6	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	43	24774	4.6	4.3	6.3	9.3	10.3	0.96	1.8	4.0	0.30	0.74	40.9	143	0.64	0.069	0.062	19.1	0.54	7856	16174	662	184	D	M	0.0055	135.6	3.14	752	7.9	10.1	0.23	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	48	21433	5.2	4.9	6.9	10.1	11.3	1.02	1.9	4.5	0.29	0.84	44.9	140	0.68	0.068	0.061	19.8	0.59	7805	16174	663	180	D	M	0.0077	164.3	3.41	2021	8.0	30.4	0.63	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	53	18583	5.7	5.4	7.5	10.9	12.2	1.08	2.0	5.0	0.28	0.94	48.0	136	0.73	0.067	0.060	20.0	0.63	7703	16174	655	175	D	M	0.0103	191.0	3.59	3318	8.2	58.7	1.10	3	12.5	0.2	0.00	0	0.0	0.0	0.00
50	58	16174	6.3	5.9	8.0	11.6	13.0	1.13	2.1	5.4	0.27	1.05	50.3	133	0.79	0.068	0.060	20.0	0.66	7567	16174	641	170	D	M	0.0133	215.3	3.70	4445	8.5	91.7	1.58	21	12.6	1.3	0.02	0	0.0	0.0	0.00
55	63	14144	6.8	6.5	8.5	12.3	13.8	1.19	2.2	5.8	0.27	1.16	51.9	130	0.84	0.068	0.061	19.9	0.68	7411	16174	623	165	D	M	0.0168	237.1	3.75	5250	8.8	125.5	1.99	75	12.7	5.1	0.08	4	14.4	0.3	0.00
60	68	12433	7.4	7.0	9.0	12.9	14.4	1.25	2.3	6.2	0.27	1.28	53.0	128	0.90	0.070	0.062	19.5	0.70	7244	16174	603	159	D	M	0.0206	256.4	3.76	5728	9.0	157.6	2.31	191	12.9	13.6	0.20	18	14.5	1.4	0.02
65	73	10988	7.9	7.5	9.4	13.4	15.1	1.31	2.4	6.6	0.27	1.40	53.8	126	0.95	0.071	0.063	19.1	0.70	7071	16174	583	154	D	M	0.0249	273.3	3.74	5932	9.4	186.7	2.55	407	12.9	30.0	0.41	52	14.6	4.5	0.06
70	78	9763	8.4	8.0	9.9	14.0	15.7	1.36	2.6	7.0	0.26	1.53	54.2	124	1.01	0.073	0.065	18.7	0.71	6899	16174	562	149	D	M	0.0295	288.1	3.69	5940	9.7	212.3	2.72	653	13.1	50.6	0.65	120	14.7	10.6	0.14
75	83	8721	8.9	8.5	10.2	14.4	16.2	1.42	2.7	7.3	0.26	1.66	54.3	122	1.07	0.074	0.066	18.2	0.71	6728	16174	541	145	D	M	0.0345	300.9	3.62	5810	10.0	234.5	2.82	921	13.3	75.0	0.90	220	14.9	20.5	0.25
80	88	7829	9.4	8.9	10.6	14.9	16.7	1.47	2.8	7.6	0.26	1.79	54.3	120	1.13	0.076	0.068	17.7	0.71	6561	16174	521	140	D	M	0.0399	312.0	3.54	5596	10.3	253.6	2.88	1185	13.5	101.5	1.15	351	15.0	34.2	0.39
85	93	7062	9.9	9.4	10.9	15.3	17.2	1.53	2.9	7.9	0.26	1.93	54.1	119	1.19	0.078	0.069	17.2	0.70	6400	16174	502	136	D	M	0.0455	321.4	3.45	5336	10.7	269.8	2.90	1424	13.7	128.4	1.38	535	15.1	53.6	0.58
90	98	6400	10.3	9.8	11.2	15.7	17.6	1.58	3.0	8.2	0.26	2.06	53.8	117	1.25	0.080	0.071	16.7	0.70	6244	16174	484	132	D	M	0.0515	329.5	3.36	5054	11.0	283.5	2.89	1628	13.9	154.3	1.57	699	15.3	73.2	0.75
95	103	5825	10.8	10.3	11.5	16.0	18.0	1.63	3.1	8.4	0.26	2.20	53.4	115	1.31	0.082	0.073	16.2	0.69	6095	16174	466	128	D	M	0.0577	336.3	3.26	4767	11.3	295.1	2.86	1791	14.1	178.4	1.73	858	15.4	94.0	0.91
100	108	5323	11.2	10.7	11.8	16.3	18.4	1.68	3.2	8.7	0.27	2.34	52.9	114	1.37	0.084	0.075	15.8	0.68	5952	16174	450	125	D	M	0.0642	341.9	3.16	4482	11.7	304.8	2.82	1912	14.3	200.3	1.85	1004	15.6	115.0	1.06
105	113	4883	11.7	11.1	12.1	16.7	18.7	1.73	3.3	8.9	0.27	2.48	52.4	113	1.43	0.086	0.076	15.3	0.67	5815	16174	434	121	D	M	0.0710	346.6	3.06	4209	12.0	312.9	2.77	1996	14.5	219.7	1.94	1131	15.8	135.5	1.20
110	118	4495	12.1	11.6	12.3	16.9	19.0	1.78	3.4	9.1	0.27	2.62	51.9	111	1.49	0.088	0.078	14.9	0.66	5685	16174	420	118	D	M	0.0780	350.4	2.97	3952	12.4	319.6	2.70	2049	14.8	236.7	2.00	1239	16.0	155.0	1.31
115	123	4152	12.5	12.0	12.6	17.2	19.4	1.83	3.5	9.3	0.27	2.77	51.3	110	1.55	0.090	0.080	14.5	0.65	5562	16174	406	115	D	M	0.0851	353.4	2.87	3710	12.7	325.2	2.64	2074	15.0	251.4	2.04	1325	16.2	173.2	1.41
120	128	3848	13.0	12.4	12.8	17.5	19.6	1.87	3.6	9.5	0.27	2.91	50.7	109	1.61	0.092	0.082	14.1	0.64	5444	16174	393	112	D	M	0.0924	355.7	2.78	3485	13.1	329.7	2.57	2077	15.2	264.1	2.06	1391	16.4	189.8	1.48
125	133	3577	13.4	12.8	13.0	17.7	19.9	1.92	3.7	9.6	0.27	3.05	50.1	108	1.67	0.094	0.084	13.7	0.64	5332	16174	381	109	D	M	0.0999	357.5	2.68	3278	13.4	333.3	2.50	2064	15.5	274.8	2.06	1439	16.6	204.8	1.54
130	138	3334	13.8	13.2	13.2	17.9	20.2	1.96	3.8	9.8	0.27	3.20	49.6	106	1.73	0.097	0.086	13.4	0.63	5225	16174	369	107	D	M	0.1076	358.7	2.60	3085	13.8	336.2	2.43	2037	15.7	283.8	2.05	1472	16.8	218.1	1.58
135	143	3116	14.1	13.5	13.4	18.2	20.4	2.01	3.9	9.9	0.28	3.34	49.0	105	1.79	0.099	0.088	13.0	0.62	5124	16174	358	104	D	M	0.1154	359.5	2.51	2908	14.1	338.4	2.36	2001	16.0	291.4	2.04	1491	17.0	230.0	1.61
140	148	2920	14.5	13.9	13.6	18.4	20.6	2.05	4.0	10.1	0.28	3.49	48.4	104	1.85	0.101	0.090	12.7	0.61	5027	16174	348	102	D	M	0.1233	359.9	2.43	2746	14.4	340.0	2.29	1957	16.2	297.6	2.01	1498	17.2	240.4	1.62
145	153	2742	14.9	14.3	13.7	18.5	20.8	2.09	4.0	10.2	0.28	3.63	47.9	103	1.91	0.103	0.092	12.4	0.60	4936	16174	338	100	D	M	0.1313	359.9	2.35	2594	14.8	341.1	2.23	1908	16.5	302.8	1.98	1495	17.4	249.5	1.63
150	158	2582	15.3	14.6	13.9	18.7	21.0	2.13	4.1	10.3	0.28	3.78	47.3	102	1.97	0.105	0.094	12.1	0.59	4849	16174	329	98	D	M	0.1393	359.6	2.27	2455	15.1	341.8	2.16	1856	16.7	307.0	1.94	1485	17.7	257.4	1.63
155	163	2436	15.6	15.0	14.1	18.9	21.2	2.17	4.2	10.4	0.28	3.93	46.8	101	2.03	0.107	0.095	11.8	0.58	4766	16174	320	96	D	M	0.1474	359.0	2.20	2329	15.4	342.1	2.10	1804	17.0	310.3	1.90	1471	17.9	264.2	1.62
160	168	2302	16.0	15.3	14.2	19.1	21.4	2.21	4.3	10.5	0.29	4.07	46.2	100	2.08	0.109	0.097	11.6	0.57	4688	16174	312	94	D	M	0.1556	358.2	2.13	2210	15.7	342.1	2.03	1748	17.2	313.0	1.86	1449	18.1	270.1	1.61
165	173	2181	16.3	15.7	14.4	19.2	21.6	2.25	4.4	10.6	0.29	4.22	45.7	99	2.14	0.111	0.099	11.3	0.56	4613	16174	304	92	D	M	0.1638	357.2	2.06	2101	16.0	341.8	1.97	1694	17.5	315.0	1.82	1408	18.4	273.9	1.58
170	178	2069	16.7	16.0	14.5	19.4	21.7	2.29	4.5	10.7	0.29	4.36	45.3	98	2.20	0.113	0.101	11.1	0.56	4543	16174	297	90	D	M	0.1721	356.0	2.00	2001	16.4	341.3	1.92	1641	17.7	316.5	1.78	1384	18.6	278.2	1.56
175	183	1967	17.0	16.3	14.6	19.5	21.9	2.33	4.5	10.8	0.29	4.51	44.8	97	2.25	0.116	0.103	10.9	0.55	4475	16174	290	89	D	M	0.1803	354.6	1.94	1907	16.7	340.5	1.86	1588	18.0	317.5	1.73	1356	18.8	281.8	1.54
180	188	1873	17.4	16.6	14.8	19.7	22.1	2.37	4.6	10.8	0.30	4.66	44.3	96	2.31	0.118	0.105	10.6	0.54	4411	16174	284	87	D	M	0.1886	353.2	1.88	1816	17.0	339.6	1.80	1536	18.2	318.1	1.69	1326	19.1	284.8	1.51
		SI = 13 m Initial Density = 80000 stems/ha																																						
5	13	77907	0.5	0.4	1.6	2.5	2.6	0.66	0.9	0.6	0.59	0.34	1.3	454	0.36	0.146	0.136	1.9	0.03	8681	23363	336	265	D	M	0.0000	1.1	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	72903	1.2	1.1	2.4	3.7	4.1	0.69	1.0	1.1	0.47	0.37	7.9	234	0.37	0.099	0.091	7.3	0.11	9539	23363	503	270	D	M	0.0001	9.5	0.52	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	65885	1.8	1.7	3.2	5.0	5.5	0.72	1.2	1.7	0.40	0.41	16.6	193	0.39	0.078	0.071	12.4	0.23	10100	23363	641	271	D	M	0.0004	26.8	1.16	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	58006	2.4	2.2	3.9	6.1	6.8	0.76	1.3	2.2	0.35	0.46	25.7	175	0.42	0.068	0.061	16.7	0.35	10378	23363	740	267	D	M	0.0009	51.4	1.83	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	50211	2.9	2.7	4.6	7.2	8.1	0.81	1.4	2.8	0.32	0.52	33.8	165	0.45	0.062	0.055	19.8	0.46	10430	23363	800	260	D	M	0.0016	80.5	2.43	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	38	43070	3.5	3.3	5.2	8.2	9.2	0.85	1.5	3.3	0.30	0.58	40.7	157	0.48	0.059	0.052	21.9	0.55	10320	23363	830	251	D	M	0.0026	111.3	2.92	15	7.7	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	43	36828	4.0	3.8	5.8	9.2	10.3	0.90	1.5	3.8	0.28	0.65	46.3	151	0.52	0.057	0.051	23.1	0.63	10110	23363	836	241	D	M	0.0039	141.8	3.29	211	7.7	2.5	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	48	31520	4.5	4.2	6.3	10.0	11.3	0.95	1.6	4.2	0.27	0.73	50.5	146	0.56	0.056	0.050	23.8	0.68	9841	23363	828	231	D	M	0.0054	170.6	3.54	952	7.8	12.4	0.26	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	53	27069	5.0	4.7	6.9	10.8	12.2	1.00	1.7	4.6	0.27	0.81	53.7	142	0.61	0.057	0.050	23.9	0.72	9543	23363	810	221	D	M	0.0073	197.2	3.71	2085	8.0	31.4	0.59	0	0.0	0.0	0.00	0	0.0	0.0	0.00
50	58	23363	5.5	5.2	7.3	11.5	13.0	1.05	1.8	5.0	0.26	0.90	55.9	139	0.65	0.057	0.050	23.8	0.75	9236	23363	785	211	D	M	0.0095	221.1	3.80	3384	8.2	58.4	1.00	1	12.5	0.1	0.00	0	0.0	0.0	0.00
55	63	20281	6.0	5.7	7.8	12.1	13.8	1.10	1.9	5.4	0.26	0.99	57.5	136	0.70	0.058	0.051	23.5	0.77	8930	23363	758	202	D	M	0.0120	242.4	3.84	4567	8.4	89.9	1.42	10	12.6	0.7	0.01	0	0.0	0.0	0.00
60	68	17712	6.5	6.1	8.2	12.7	14.4	1.16	2.0	5.8	0.26	1.09	58.5	133	0.75	0.059	0.052	23.0	0.78	8632	23363	729	193	D	M	0.0147	261.2	3.83	5480	8.6	122.4	1.80	40	12.7	2.7	0.04	1	14.3	0.1	0.00
65	73	15564	7.0	6.6	8.6	13.2	15.1	1.20	2.1	6.1	0.26	1.19	59.1	131	0.80	0.061	0.053	22.4	0.79	8346	23363	700	185	D	M	0.0178	277.6	3.79	6085	8.8	153.6	2.10	126	12.7	8.7	0.12	7	14.4	0.6	0.01
70	78	13758	7.4	7.0	8.9	13.7	15.7	1.25	2.3	6.4	0.26	1.29	59.3	128	0.85	0.062	0.054	21.8	0.79	8074	23363	672	178	D	M	0.0212	291.9	3.73	6417	9.1	182.2	2.33	258	12.8	18.6	0.24	23	14.5	1.9	0.02
75	83	12232	7.9	7.4	9.3	14.2	16.2	1.30	2.4	6.7	0.26	1.40	59.3	126	0.90	0.064	0.056	21.2	0.78	7815	23363	645	171	D	M	0.0249	304.2	3.66	6530	9.3	207.6	2.50	441	12.9	33.3	0.40	57	14.6	5.0	0.06
80	88	10934	8.3	7.9	9.6	14.6	16.7	1.35	2.5	7.0	0.26	1.50	59.1	124	0.96	0.065	0.057	20.5	0.78	7571	23363	618	164	D	M	0.0288	314.8	3.57	6486	9.6	229.7	2.61	663	13.1	52.1	0.59	116	14.7	10.5	0.12
85	93	9825	8.7	8.3	9.9	15.0	17.2	1.40	2.5	7.3	0.26	1.61	58.8	123	1.01	0.067	0.059	19.9	0.77	7341	23363	594	158	D	M	0.0330	323.9	3.48	6334	9.9	248.7	2.67	903	13.2	73.8	0.79	221	14.8	20.4	0.22
90	98	8870	9.1	8.7	10.2	15.4	17.6	1.44	2.6	7.5	0.26	1.72	58.3	121	1.06	0.069	0.060	19.3	0.76	7125	23363	570	153	D	M	0.0374	331.6	3.38	6112	10.2	265.0	2.70	1141	13.4	97.2	0.99	337	14.9	32.2	0.33
95	103	8045	9.6	9.1	10.4	15.7	18.0	1.49	2.7	7.8	0.26	1.84	57.7	119	1.11	0.071	0.062	18.7	0.75	6921	23363	548	148	D	M	0.0420	338.1	3.28	5849	10.5	278.8	2.70	1362	13.6	121.0	1.17	469	15.0	46.6	0.45
100	108	7328	10.0	9.5	10.7	16.1	18.4	1.54	2.8	8.0	0.26	1.95	57.1	118	1.17	0.073	0.064	18.1	0.74	6729	23363	527	143	D	M	0.0469	343.6	3.18	5568	10.7	290.4	2.69	1559	13.7	144.2	1.33	611	15.1	63.0	0.58
105	113	6701	10.4	9.9	10.9	16.4	18.7	1.58	2.9	8.2	0.26	2.07	56.5	116	1.22	0.075	0.065	17.6	0.73	6548	23363	507	139	D	M	0.0519	348.0	3.08	5279	11.0	300.2	2.65	1723	13.9	166.2	1.47	753	15.3	80.5	0.71
110	118	6151	10.7	10.2	11.1	16.6	19.0	1.62	3.0	8.4	0.26	2.18	55.8	115	1.28	0.077	0.067	17.0	0.72	6377	23363	489	134	D	M	0.0572	351.7	2.98	4993	11.3	308.4	2.61	1855	14.1	186.4	1.58	889	15.4	98.6	0.83
115	123	5666	11.1	10.6	11.3	16.9	19.4	1.67	3.1	8.6	0.26	2.30	55.1	114	1.33	0.079	0.069	16.5	0.71	6216	23363	472	130	D	M	0.0626	354.6	2.88	4717	11.6	315.2	2.56	1956	14.3	204.7	1.66	1014	15.6	116.6	0.95
120	128	5236	11.5	11.0	11.5	17.1	19.6	1.71	3.2	8.8	0.26	2.42	54.4	112	1.38	0.081	0.070	16.0	0.70	6064	23363	456	127	D	M	0.0681	356.8	2.78	4455	11.9	320.8	2.50	2030	14.5	221.1	1.73	1125	15.7	134.1	1.05
125	133	4854	11.9	11.3	11.7	17.4	19.9	1.75	3.3	8.9	0.27	2.54	53.7	111	1.44	0.083	0.072	15.6	0.69	5921	23363	440	123	D	M	0.0739	358.5	2.69	4203	12.2	325.4	2.44	2075	14.7	235.5	1.77	1219	15.9	150.8	1.13
130	138	4512	12.2	11.7	11.9	17.6	20.2	1.79	3.4	9.1	0.27	2.66	53.0	110	1.49	0.085	0.074	15.2	0.68	5786	23363	426	120	D	M	0.0797	359.7	2.60	3969	12.5	329.1	2.38	2102	14.9	248.1	1.80	1300	16.1	166.4	1.20
135	143	4206	12.6	12.0	12.1	17.8	20.4	1.83	3.5	9.2	0.27	2.78	52.3	109	1.54	0.087	0.076	14.8	0.67	5658	23363	413	117	D	M	0.0857	360.4	2.52	3748	12.8	332.0	2.32	2109	15.1	259.0	1.81	1362	16.2	180.8	1.26
140	148	3931	12.9	12.3	12.2	18.0	20.6	1.87	3.6	9.4	0.27	2.90	51.7	108	1.59	0.089	0.077	14.4	0.66	5537	23363	400	114	D	M	0.0918	360.8	2.44	3546	13.1	334.3	2.26	2104	15.3	268.3	1.81	1413	16.4	193.9	1.31
145	153	3683	13.3	12.7	12.4	18.2	20.8	1.91	3.6	9.5	0.27	3.02	51.0	106	1.65	0.091	0.079	14.0	0.64	5422	23363	388	111	D	M	0.0979	360.7	2.36	3356	13.4	336.0	2.19	2086	15.5	276.3	1.80	1450	16.6	205.8	1.34
150	158	3459	13.6	13.0	12.5	18.4	21.0	1.94	3.7	9.6	0.28	3.15	50.4	105	1.70	0.093	0.081	13.6	0.63	5313	23363	377	109	D	M	0.1042	360.4	2.28	3177	13.7	337.2	2.13	2058	15.7	283.1	1.79	1475	16.8	216.5	1.37
155	163	3255	13.9	13.3	12.7	18.5	21.2	1.98	3.8	9.7	0.28	3.27	49.7	104	1.75	0.095	0.083	13.3	0.62	5210	23363	366	106	D	M	0.1105	359.8	2.21	3013	13.9	338.0	2.07	2024	15.9	288.7	1.77	1489	17.0	226.1	1.39
160	168	3069	14.3	13.6	12.8	18.7	21.4	2.02	3.9	9.8	0.28	3.39	49.1	103	1.81	0.097	0.084	13.0	0.61	5113	23363	357	104	D	M	0.1170	359.0	2.13	2862	14.2	338.4	2.01	1985	16.1	293.4	1.74	1469	17.2	232.6	1.38
165	173	2900	14.6	13.9	12.9	18.8	21.6	2.05	4.0	9.9	0.28	3.51	48.5	102	1.86	0.099	0.086	12.7	0.60	5020	23363	347	102	D	M	0.1234	358.0	2.07	2720	14.5	338.4	1.95	1942	16.3	297.3	1.72	1470	17.4	240.2	1.39
170	178	2745	14.9	14.3	13.0	19.0	21.7	2.09	4.0	10.0	0.28	3.64	48.0	101	1.91	0.101	0.088	12.4	0.59	4932	23363	338	100	D	M	0.1300	356.8	2.00	2587	14.8	338.2	1.90	1895	16.5	300.5	1.69	1463	17.6	246.9	1.39
175	183	2603	15.2	14.6	13.2	19.1	21.9	2.13	4.1	10.1	0.29	3.76	47.4	100	1.96	0.103	0.089	12.1	0.59	4849	23363	330	98	D	M	0.1365	355.4	1.94	2468	15.0	337.7	1.84	1850	16.7	303.0	1.65	1456	17.8	252.7	1.38
180	188	2473	15.5	14.8	13.3	19.2	22.1	2.16	4.2	10.1	0.29	3.88	46.9	99	2.01	0.105	0.091	11.9	0.58	4769	23363	322	96	D	M	0.1431	353.9	1.88	2346	15.3	336.9	1.79	1799	17.0	304.9	1.62	1439	17.9	257.8	1.37

Table A55. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

SI = 14 m Initial Density = 800 stems/ha

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume) N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	Util. std. = 8/6 N	D	V/ha	Mai	Util. std. = 13/7 N	D	V/ha	Mai	Util. std = 15/10 N	D	V/ha	Mai
5	13	798	2.4	2.3	2.3	2.7	2.8	0.77	2.0	0.3	0.86	0.47	0.4	118	3.54	1.322	1.283	0.2	0.00	136	694	10	4	V	M	0.0006	0.5	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	794	4.6	4.3	3.7	4.2	4.3	0.96	3.0	0.8	0.78	0.74	1.3	98	3.55	0.850	0.821	0.6	0.01	242	694	21	6	A	M	0.0033	2.6	0.15	4	9.2	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	787	6.5	6.1	5.0	5.7	5.9	1.15	3.7	1.5	0.70	1.09	2.6	95	3.56	0.631	0.607	1.0	0.02	372	694	32	9	A	M	0.0093	7.3	0.32	161	9.3	2.7	0.12	4	12.7	0.1	0.00	0	0.0	0.0	0.00
20	28	778	8.2	7.7	6.3	7.1	7.3	1.33	4.3	2.4	0.64	1.47	4.1	94	3.59	0.508	0.489	1.4	0.04	515	694	43	11	A	M	0.0185	14.4	0.52	386	9.9	9.5	0.34	44	13.4	2.1	0.08	10	14.9	0.5	0.02
25	33	767	9.7	9.1	7.5	8.4	8.7	1.50	4.7	3.2	0.59	1.87	5.6	94	3.61	0.432	0.415	1.8	0.06	664	694	53	14	A	M	0.0309	23.7	0.73	527	10.8	18.9	0.58	137	13.9	8.5	0.26	54	15.4	3.6	0.11
30	38	754	11.1	10.5	8.6	9.6	10.0	1.65	5.1	4.1	0.55	2.28	7.2	94	3.64	0.380	0.365	2.2	0.08	813	694	62	17	A	M	0.0462	34.8	0.93	602	11.7	30.1	0.80	244	14.5	18.6	0.49	129	15.9	10.6	0.28
35	43	740	12.3	11.7	9.6	10.7	11.1	1.79	5.4	4.9	0.51	2.69	8.8	93	3.68	0.344	0.331	2.5	0.09	959	694	70	20	A	M	0.0635	47.0	1.10	640	12.7	42.4	1.00	338	15.1	31.2	0.73	213	16.4	21.1	0.50
40	48	726	13.5	12.8	10.6	11.7	12.2	1.93	5.6	5.7	0.49	3.10	10.4	93	3.71	0.317	0.305	2.8	0.11	1099	694	78	22	A	M	0.0829	60.2	1.26	658	13.6	55.6	1.17	411	15.8	45.1	0.95	291	16.9	33.8	0.71
45	53	710	14.6	13.9	11.5	12.6	13.1	2.05	5.8	6.4	0.47	3.50	11.8	92	3.75	0.297	0.286	3.1	0.13	1231	694	85	25	A	M	0.1037	73.6	1.40	662	14.5	69.0	1.31	464	16.4	59.3	1.13	354	17.5	47.6	0.91
50	58	694	15.6	14.9	12.4	13.5	14.0	2.16	5.9	7.0	0.45	3.90	13.2	92	3.80	0.281	0.271	3.3	0.15	1354	694	91	27	A	M	0.1255	87.1	1.51	659	15.4	82.5	1.43	500	17.0	73.6	1.28	404	18.0	61.9	1.07
55	63	677	16.5	15.8	13.1	14.3	14.8	2.27	6.1	7.6	0.44	4.28	14.5	91	3.84	0.269	0.260	3.6	0.16	1469	694	96	29	A	M	0.1482	100.3	1.60	651	16.2	95.6	1.53	523	17.7	87.4	1.40	440	18.6	76.1	1.22
60	68	660	17.4	16.7	13.8	15.0	15.5	2.37	6.2	8.2	0.43	4.66	15.7	91	3.89	0.260	0.251	3.8	0.18	1575	694	100	31	B	M	0.1715	113.2	1.67	641	17.0	108.4	1.60	537	18.3	100.8	1.49	466	19.1	90.0	1.33
65	73	644	18.2	17.5	14.5	15.6	16.2	2.46	6.3	8.7	0.42	5.04	16.8	90	3.94	0.252	0.243	3.9	0.19	1672	694	104	32	B	M	0.1950	125.6	1.73	629	17.7	120.9	1.67	545	18.9	113.7	1.57	484	19.7	103.4	1.42
70	78	627	19.0	18.2	15.1	16.3	16.8	2.55	6.4	9.1	0.41	5.40	17.7	89	3.99	0.246	0.238	4.1	0.20	1761	694	107	34	B	M	0.2190	137.3	1.77	616	18.5	132.5	1.71	546	19.5	125.6	1.62	495	20.2	115.9	1.49
75	83	611	19.7	19.0	15.7	16.8	17.4	2.63	6.5	9.5	0.40	5.75	18.7	89	4.05	0.241	0.233	4.2	0.22	1842	694	110	35	B	M	0.2429	148.4	1.80	602	19.2	143.6	1.74	545	20.1	137.0	1.66	500	20.7	127.7	1.55
80	88	595	20.4	19.7	16.2	17.3	17.9	2.71	6.6	9.9	0.40	6.10	19.5	88	4.10	0.237	0.229	4.3	0.23	1917	694	112	36	B	M	0.2669	158.8	1.81	588	19.8	153.8	1.76	540	20.7	147.5	1.68	502	21.3	138.8	1.58
85	93	580	21.1	20.3	16.7	17.8	18.4	2.79	6.7	10.2	0.39	6.44	20.3	87	4.15	0.233	0.226	4.4	0.24	1984	694	115	37	B	M	0.2905	168.5	1.82	575	20.4	163.6	1.77	534	21.2	157.4	1.70	502	21.8	149.2	1.61
90	98	566	21.7	20.9	17.2	18.3	18.8	2.86	6.8	10.6	0.39	6.77	21.0	87	4.20	0.230	0.223	4.5	0.25	2046	694	116	38	B	M	0.3141	177.8	1.82	562	21.0	172.8	1.77	527	21.8	166.7	1.71	499	22.3	159.0	1.63
95	103	551	22.3	21.5	17.6	18.7	19.2	2.93	6.9	10.8	0.38	7.09	21.6	86	4.26	0.228	0.222	4.6	0.26	2103	694	118	39	B	M	0.3374	185.9	1.81	547	21.7	180.9	1.76	518	22.3	174.9	1.70	494	22.7	167.6	1.63
100	108	538	22.9	22.1	18.0	19.1	19.6	2.99	7.0	11.1	0.38	7.41	22.2	85	4.31	0.226	0.220	4.6	0.26	2155	694	119	40	B	M	0.3604	193.9	1.80	535	22.2	188.9	1.76	510	22.8	183.0	1.70	489	23.2	176.0	1.64
105	113	525	23.5	22.7	18.4	19.4	20.0	3.06	7.0	11.3	0.38	7.71	22.7	84	4.36	0.225	0.219	4.7	0.27	2203	694	120	40	B	M	0.3830	201.1	1.79	523	22.7	196.0	1.74	501	23.3	190.2	1.69	483	23.7	183.6	1.63
110	118	513	24.0	23.2	18.7	19.8	20.3	3.12	7.1	11.5	0.38	8.01	23.2	84	4.42	0.223	0.217	4.7	0.28	2247	694	121	41	B	M	0.4053	207.9	1.77	511	23.3	202.8	1.72	492	23.8	197.0	1.68	476	24.1	190.7	1.62
115	123	501	24.5	23.7	19.1	20.1	20.6	3.17	7.2	11.7	0.38	8.31	23.6	83	4.47	0.223	0.217	4.8	0.29	2287	694	122	42	B	M	0.4269	213.9	1.74	499	23.8	208.8	1.70	483	24.2	203.0	1.66	469	24.6	197.1	1.61
120	128	490	25.0	24.2	19.4	20.4	20.9	3.23	7.2	11.9	0.37	8.60	24.1	82	4.52	0.222	0.216	4.8	0.29	2325	694	122	42	B	M	0.4484	219.7	1.72	489	24.2	214.5	1.68	475	24.6	208.8	1.64	462	25.0	203.1	1.59
125	133	479	25.5	24.7	19.7	20.7	21.2	3.28	7.3	12.0	0.37	8.88	24.4	82	4.57	0.221	0.216	4.8	0.30	2360	694	123	43	B	M	0.4691	224.7	1.69	478	24.7	219.6	1.66	465	25.1	213.8	1.61	454	25.4	208.3	1.57
130	138	469	25.9	25.1	20.0	20.9	21.4	3.33	7.4	12.2	0.37	9.15	24.8	81	4.62	0.221	0.215	4.9	0.30	2393	694	123	43	B	M	0.4893	229.5	1.67	468	25.2	224.4	1.63	457	25.5	218.7	1.59	447	25.8	213.4	1.55
135	143	459	26.4	25.6	20.2	21.2	21.7	3.38	7.4	12.3	0.37	9.42	25.1	80	4.67	0.221	0.215	4.9	0.31	2424	694	123	43	B	M	0.5092	233.7	1.64	458	25.6	228.6	1.60	448	25.9	222.8	1.56	439	26.2	217.8	1.53
140	148	450	26.8	26.0	20.5	21.4	21.9	3.43	7.5	12.4	0.37	9.68	25.4	79	4.71	0.220	0.215	4.9	0.31	2453	694	124	44	B	M	0.5284	237.8	1.61	449	26.0	232.6	1.58	441	26.3	227.0	1.54	432	26.6	222.1	1.50
145	153	442	27.2	26.4	20.7	21.6	22.1	3.48	7.5	12.5	0.37	9.94	25.7	79	4.76	0.220	0.215	4.9	0.32	2481	694	124	44	B	M	0.5473	241.9	1.59	442	26.4	236.7	1.55	434	26.7	231.0	1.51	426	27.0	226.3	1.48
150	158	434	27.6	26.8	20.9	21.8	22.3	3.52	7.6	12.6	0.37	10.19	26.0	78	4.80	0.220	0.215	4.9	0.32	2507	694	124	44	B	M	0.5657	245.5	1.56	434	26.8	240.3	1.52	427	27.1	234.6	1.49	420	27.3	230.0	1.46
155	163	426	28.0	27.2	21.1	22.0	22.5	3.56	7.6	12.6	0.37	10.44	26.3	77	4.85	0.220	0.215	5.0	0.32	2532	694	124	44	B	M	0.5833	248.5	1.53	426	27.2	243.3	1.50	419	27.5	237.6	1.46	413	27.7	233.2	1.43
160	168	419	28.4	27.5	21.3	22.2	22.7	3.61	7.7	12.7	0.37	10.68	26.5	77	4.89	0.220	0.215	5.0	0.33	2556	694	125	45	B	M	0.6007	251.7	1.50	419	27.5	246.4	1.47	413	27.8	240.7	1.44	407	28.0	236.5	1.41
165	173	412	28.8	27.9	21.5	22.4	22.9	3.65	7.7	12.8	0.37	10.92	26.8	76	4.93	0.220	0.215	5.0	0.33	2579	694	125	45	B	M	0.6175	254.4	1.47	412	27.9	249.1	1.44	407	28.1	243.4	1.41	401	28.4	239.3	1.39
170	178	405	29.1	28.3	21.7	22.6	23.0	3.69	7.7	12.8	0.37	11.15	26.9	76	4.97	0.220	0.216	5.0	0.33	2602	694	125	45	B	M	0.6336	256.6	1.44	405	28.3	251.4	1.42	400	28.5	245.6	1.38	395	28.7	241.6	1.36
175	183	399	29.4	28.6	21.9	22.7	23.2	3.72	7.8	12.8	0.37	11.37	27.2	75	5.01	0.220	0.216	5.0	0.34	2624	694	125	45	B	M	0.6494	259.1	1.42	399	28.6	253.8	1.39	395	28.8	248.1	1.36	390	29.0	244.2	1.34
180	188	393	29.8	28.9	22.0	22.9	23.4	3.76	7.8	12.9	0.37	11.60	27.4	74	5.04	0.220	0.216	5.0	0.34	2645	694	125	46	B	M	0.6646	261.2	1.39	393	28.9	255.9	1.36	389	29.1	250.2	1.33	385	29.3	246.4	1.31

SI = 14 m Initial Density = 1000 stems/ha

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume) N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	Util. std. = 8/6 N	D	V/ha	Mai	Util. std. = 13/7 N	D	V/ha	Mai	Util. std = 15/10 N	D	V/ha	Mai
5	13	997	2.3	2.2	2.3	2.7	2.8	0.76	1.9	0.3	0.85	0.46	0.4	123	3.17	1.184	1.148	0.3	0.00	166	827	12	5	V	M	0.0005	0.5	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	989	4.4	4.1	3.6	4.2	4.3	0.94	2.8	0.8	0.76	0.71	1.5	102	3.18	0.763	0.736	0.7	0.01	287	827	25	7	A	M	0.0029	2.9	0.16	2	9.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	978	6.2	5.8	4.9	5.6	5.9	1.12	3.6	1.6	0.68	1.02	2.9	98	3.20	0.567	0.545	1.2	0.03	433	827	37	10	A	M	0.0082	8.0	0.35	156	9.1	2.5	0.11	2	12.5	0.1	0.00	0	0.0	0.0	0.00
20	28	962	7.8	7.3	6.2	7.0	7.3	1.29	4.1	2.4	0.62	1.37	4.6	97	3.22	0.458	0.439	1.6	0.05	593	827	50	13	A	M	0.0165	15.9	0.58	427	9.7	9.8	0.36	35	13.2	1.7	0.06	6	14.8	0.3	0.01
25	33	944	9.2	8.7	7.4	8.3	8.7	1.45	4.5	3.3	0.57	1.74	6.3	96	3.25	0.390	0.374	2.1	0.07	759	827	61	16	A	M	0.0276	26.1	0.80	611	10.5	20.1	0.62	128	13.7	7.6	0.23	43	15.2	2.8	0.09
30	38	924	10.6	10.0	8.5	9.6	10.0	1.60	4.8	4.2	0.53	2.12	8.1	96	3.29	0.344	0.330	2.5	0.09	923	827	71	20	A	M	0.0415	38.3	1.02	711	11.3	32.5	0.86	250	14.2	18.2	0.48	119	15.6	9.4	0.25
35	43	901	11.8	11.2	9.6	10.7	11.1	1.73	5.1	5.0	0.50	2.51	9.8	96	3.33	0.313	0.300	2.9	0.11	1081	827	81	23	A	M	0.0574	51.7	1.21	761	12.2	46.0	1.08	363	14.8	31.8	0.75	213	16.1	20.1	0.47
40	48	877	12.9	12.3	10.5	11.7	12.2	1.86	5.3	5.7	0.47	2.89	11.5	95	3.38	0.289	0.278	3.2	0.13	1232	827	89	25	A	M	0.0750	65.8	1.38	781	13.1	60.3	1.27	454	15.4	47.0	0.99	304	16.6	33.5	0.70
45	53	852	14.0	13.3	11.4	12.6	13.1	1.98	5.5	6.4	0.45	3.27	13.1	94	3.43	0.272	0.261	3.5	0.14	1372	827	96	28	A	M	0.0942	80.3	1.53	785	14.0	74.8	1.42	520	16.0	62.6	1.19	381	17.1	48.4	0.92
50	58	827	15.0	14.3	12.3	13.5	14.0	2.09	5.6	7.1	0.44	3.65	14.5	94	3.48	0.258	0.248	3.8	0.16	1502	827	102	30	B	M	0.1146	94.8	1.65	779	14.8	89.3	1.55	566	16.6	78.2	1.36	443	17.6	64.0	1.11
55	63	801	15.9	15.2	13.0	14.2	14.8	2.20	5.8	7.7	0.42	4.03	15.9	93	3.53	0.248	0.239	4.0	0.18	1620	827	107	32	B	M	0.1358	108.8	1.74	766	15.6	103.4	1.65	595	17.2	93.3	1.49	488	18.2	79.5	1.27
60	68	776	16.8	16.0	13.7	14.9	15.5	2.30	5.9	8.2	0.41	4.39	17.1	93	3.59	0.240	0.231	4.2	0.20	1728	827	112	34	B	M	0.1579	122.5	1.81	750	16.4	117.1	1.73	612	17.8	107.7	1.59	520	18.7	94.6	1.40
65	73	750	17.6	16.9	14.4	15.6	16.2	2.39	6.0	8.7	0.40	4.75	18.2	92	3.65	0.234	0.225	4.3	0.21	1825	827	115	36	B	M	0.1804	135.3	1.86	730	17.2	129.8	1.79	619	18.4	121.2	1.67	541	19.2	108.8	1.50
70	78	726	18.4	17.6	15.0	16.2	16.8	2.48	6.2	9.2	0.40	5.11	19.2	91	3.71	0.229	0.221	4.5	0.22	1913	827	119	37	B	M	0.2032	147.5	1.90	711	17.9	142.1	1.83	620	19.0	134.0	1.73	554	19.7	122.3	1.58
75	83	703	19.1	18.4	15.6	16.8	17.4	2.56	6.3	9.6	0.39	5.46	20.1	90	3.77	0.225	0.217	4.6	0.23	1992	827	121	38	B	M	0.2262	159.0	1.93	691	18.6	153.6	1.86	616	19.6	145.9	1.77	560	20.3	134.9	1.63
80	88	680	19.8	19.1	16.1	17.3	17.9	2.64	6.4	10.0	0.39	5.80	21.0	90	3.83	0.222	0.214	4.7	0.25	2063	827	123	39	B	M	0.2494	169.6	1.94	671	19.2	164.1	1.87	609	20.2	156.8	1.79	561	20.8	146.5	1.67
85	93	658	20.5	19.7	16.6	17.8	18.4	2.72	6.5	10.3	0.38	6.13	21.7	89	3.90	0.219	0.212	4.8	0.26	2127	827	125	40	B	M	0.2725	179.3	1.94	651	19.9	173.9	1.88	599	20.7	166.8	1.80	558	21.3	157.2	1.70
90	98	637	21.1	20.4	17.1	18.2	18.8	2.79	6.6	10.6	0.38	6.46	22.3	88	3.96	0.217	0.211	4.9	0.26	2184	827	126	41	B	M	0.2956	188.3	1.93	631	20.5	182.8	1.87	588	21.3	176.0	1.80	553	21.8	167.0	1.71
95	103	618	21.7	21.0	17.5	18.6	19.2	2.86	6.7	10.9	0.37	6.78	23.0	87	4.02	0.216	0.209	4.9	0.27	2236	827	127	42	B	M	0.3184	196.8	1.92	613	21.1	191.3	1.86	577	21.8	184.7	1.80	547	22.3	176.2	1.72
100	108	599	22.3	21.6	17.9	19.0	19.6	2.93	6.7	11.1	0.37	7.10	23.5	86	4.09	0.215	0.208	5.0	0.28	2283	827	128	43	B	M	0.3411	204.3	1.90	595	21.7	198.9	1.85	564	22.3	192.4	1.79	538	22.7	184.3	1.71
105	113	582	22.9	22.1	18.3	19.4	20.0	2.99	6.8	11.4	0.37	7.41	24.0	86	4.15	0.214	0.208	5.0	0.29	2325	827	129	43	B	M	0.3634	211.5	1.88	579	22.2	206.1	1.83	552	22.8	199.7	1.77	530	23.2	192.2	1.71
110	118	565	23.5	22.7	18.6	19.7	20.3	3.06	6.9	11.6	0.37	7.71	24.4	85	4.21	0.213	0.207	5.0	0.29	2364	827	129	44	B	M	0.3855	217.8	1.85	563	22.7	212.3	1.81	540	23.3	206.1	1.75	520	23.7	198.9	1.69
115	123	549	24.0	23.2	19.0	20.0	20.6	3.12	7.0	11.8	0.37	8.00	24.8	84	4.27	0.213	0.207	5.1	0.30	2399	827	129	44	B	M	0.4071	223.5	1.82	547	23.2	218.1	1.78	527	23.7	211.9	1.73	510	24.1	205.1	1.67
120	128	535	24.5	23.7	19.3	20.3	20.9	3.17	7.1	11.9	0.37	8.29	25.2	83	4.32	0.213	0.207	5.1	0.31	2432	827	130	44	B	M	0.4284	229.2	1.80	533	23.8	223.8	1.75	516	24.2	217.6	1.71	501	24.5	211.2	1.66
125	133	521	25.0	24.2	19.6	20.6	21.2	3.23	7.1	12.1	0.37	8.58	25.5	83	4.38	0.213	0.207	5.1	0.31	2462	827	130	45	B	M	0.4493	234.1	1.77	520	24.2	228.6	1.72	505	24.6	222.5	1.68	491	25.0	216.4	1.63
130	138	508	25.4	24.6	19.8	20.9	21.4	3.28	7.2	12.2	0.37	8.86	25.8	82	4.44	0.213	0.207	5.1	0.32	2490	827	130	45	B	M	0.4697	238.6	1.73	507	24.7	233.1	1.69	494	25.1	227.1	1.65	482	25.4	221.3	1.61
135	143	495	25.9	25.1	20.1	21.1	21.7	3.33	7.3	12.3	0.37	9.13	26.1	81	4.49	0.213	0.207	5.1	0.32	2516	827	130	45	B	M	0.4895	242.3	1.70	494	25.1	236.9	1.66	482	25.5	230.8	1.62	472	25.8	225.3	1.58
140	148	484	26.3	25.5	20.3	21.4	21.9	3.38	7.3	12.4	0.37	9.40	26.4	80	4.55	0.213	0.207	5.1	0.32	2541	827	130	45	B	M	0.5091	246.4	1.67	483	25.6	240.9	1.63	473	25.9	234.9	1.59	463	26.2	229.6	1.56
145	153	473	26.8	25.9	20.6	21.6	22.1	3.43	7.4	12.5	0.37	9.66	26.6	80	4.60	0.213	0.208	5.1	0.33	2564	827	130	46	B	M	0.5279	249.7	1.64	472	26.0	244.3	1.60	463	26.3	238.3	1.56	455	26.5	233.2	1.53
150	158	463	27.2	26.4	20.8	21.8	22.3	3.47	7.4	12.6	0.37	9.91	26.9	79	4.65	0.213	0.208	5.2	0.33	2586	827	130	46	B	M	0.5464	253.0	1.61	463	26.4	247.6	1.57	454	26.7	241.6	1.53	446	26.9	236.7	1.50
155	163	453	27.6	26.8	21.0	22.0	22.5	3.52	7.5	12.7	0.37	10.16	27.1	78	4.70	0.214	0.209	5.2	0.33	2607	827	129	46	B	M	0.5645	255.7	1.57	453	26.8	250.2	1.54	445	27.0	244.3	1.50	438	27.3	239.6	1.47
160	168	444	28.0	27.1	21.2	22.2	22.7	3.56	7.5	12.7	0.37	10.41	27.3	78	4.75	0.214	0.209	5.2	0.34	2628	827	129	46	B	M	0.5820	258.4	1.54	444	27.1	252.9	1.51	437	27.4	247.0	1.47	431	27.6	242.5	1.45
165	173	436	28.3	27.5	21.4	22.3	22.9	3.60	7.6	12.8	0.37	10.65	27.5	77	4.79	0.214	0.209	5.2	0.34	2647	827	129	46	B	M	0.5989	261.1	1.51	436	27.5	255.7	1.48	430	27.7	249.8	1.45	424	28.0	245.3	1.42
170	178	428	28.7	27.9	21.6	22.5	23.0	3.64	7.6	12.8	0.37	10.89	27.7	76	4.83	0.215	0.210	5.2	0.34	2666	827	129	47	B	M	0.6154	263.4	1.48	428	27.9	258.0	1.45	422	28.1	252.0	1.42	417	28.3	247.8	1.40
175	183	420	29.1	28.2	21.8	22.7	23.2	3.68	7.7	12.9	0.37	11.12	27.9	76	4.88	0.215	0.210	5.2	0.35	2685	827	129	47	B	M	0.6314	265.2	1.45	420	28.2	259.7	1.42	415	28.4	253.8	1.39	410	28.6	249.7	1.37
180	188	413	29.4	28.6	21.9	22.8	23.4	3.72	7.7	12.9	0.37	11.34	28.0	75	4.92	0.215	0.211	5.2	0.35	2703	827	129	47	B	M	0.6470	267.2	1.42	413	28.6	261.7	1.40	408	28.8	255.8	1.36	404	28.9	251.8	1.34

Table A56. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 14 m Initial Density = 1600 stems/ha																																								
5	13	1591	2.0	1.9	2.3	2.7	2.8	0.74	1.8	0.4	0.83	0.43	0.5	135	2.51	0.940	0.909	0.4	0.01	251	1179	17	7	A	M	0.0004	0.6	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	1571	3.9	3.6	3.6	4.2	4.3	0.89	2.6	0.9	0.73	0.64	1.9	109	2.52	0.607	0.584	0.9	0.02	409	1179	34	10	A	M	0.0023	3.6	0.20	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	1541	5.5	5.2	4.8	5.6	5.9	1.05	3.2	1.7	0.65	0.90	3.7	104	2.55	0.453	0.434	1.6	0.04	597	1179	52	14	A	M	0.0064	9.8	0.43	127	8.9	1.8	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	1502	7.0	6.6	6.1	7.0	7.3	1.21	3.7	2.5	0.58	1.20	5.8	103	2.58	0.368	0.352	2.2	0.06	799	1179	68	18	A	M	0.0129	19.4	0.70	496	9.2	9.8	0.36	16	13.0	0.7	0.03	2	14.2	0.1	0.00
25	33	1456	8.3	7.9	7.2	8.3	8.7	1.35	4.0	3.4	0.53	1.51	7.9	102	2.62	0.315	0.301	2.8	0.09	1003	1179	83	22	A	M	0.0218	31.8	0.98	802	9.9	22.2	0.68	95	13.4	5.3	0.16	22	14.9	1.4	0.04
30	38	1405	9.6	9.1	8.3	9.5	10.0	1.49	4.3	4.3	0.50	1.84	10.1	101	2.67	0.281	0.268	3.3	0.11	1201	1179	96	26	A	M	0.0330	46.3	1.23	981	10.6	37.1	0.99	235	13.8	15.8	0.42	86	15.3	6.3	0.17
35	43	1350	10.7	10.2	9.4	10.6	11.1	1.62	4.6	5.1	0.47	2.17	12.2	100	2.72	0.257	0.245	3.7	0.14	1387	1179	107	29	A	M	0.0461	62.2	1.46	1070	11.4	53.5	1.26	391	14.2	31.1	0.73	189	15.6	16.3	0.38
40	48	1293	11.8	11.2	10.3	11.6	12.2	1.74	4.8	5.8	0.44	2.51	14.1	100	2.78	0.239	0.229	4.1	0.16	1558	1179	116	33	B	M	0.0609	78.7	1.65	1103	12.2	70.4	1.48	528	14.8	48.9	1.03	307	16.0	30.6	0.64
45	53	1236	12.8	12.2	11.2	12.5	13.1	1.85	4.9	6.5	0.42	2.86	15.9	99	2.84	0.227	0.217	4.5	0.18	1713	1179	124	35	B	M	0.0772	95.4	1.81	1105	13.0	87.4	1.66	633	15.3	67.7	1.29	417	16.5	47.6	0.91
50	58	1179	13.8	13.1	12.0	13.4	14.0	1.96	5.1	7.2	0.41	3.20	17.5	98	2.91	0.218	0.208	4.7	0.20	1851	1179	130	38	B	M	0.0947	111.7	1.94	1086	13.8	104.0	1.81	707	15.8	86.3	1.50	509	16.9	65.7	1.14
55	63	1124	14.7	14.0	12.8	14.2	14.8	2.06	5.2	7.8	0.40	3.54	19.0	97	2.98	0.211	0.202	5.0	0.22	1973	1179	135	40	B	M	0.1133	127.4	2.04	1057	14.6	119.9	1.92	754	16.4	104.1	1.66	579	17.4	83.9	1.34
60	68	1071	15.5	14.9	13.5	14.9	15.5	2.16	5.4	8.3	0.39	3.88	20.3	96	3.06	0.206	0.197	5.1	0.24	2080	1179	139	42	B	M	0.1329	142.3	2.11	1022	15.3	135.0	2.00	780	16.9	120.9	1.79	629	17.9	101.6	1.50
65	73	1020	16.4	15.7	14.1	15.5	16.2	2.25	5.5	8.8	0.38	4.22	21.4	95	3.13	0.202	0.193	5.3	0.25	2173	1179	142	43	B	M	0.1530	156.1	2.15	984	16.0	149.0	2.05	790	17.5	136.3	1.88	662	18.4	118.2	1.63
70	78	972	17.1	16.4	14.7	16.1	16.8	2.34	5.6	9.3	0.37	4.56	22.4	95	3.21	0.199	0.191	5.4	0.26	2253	1179	145	44	B	M	0.1739	169.0	2.18	945	16.7	162.0	2.09	789	18.1	150.5	1.94	681	18.9	133.6	1.72
75	83	927	17.9	17.2	15.3	16.7	17.4	2.43	5.8	9.7	0.37	4.89	23.3	94	3.28	0.197	0.189	5.5	0.28	2323	1179	146	45	B	M	0.1950	180.8	2.19	906	17.4	174.0	2.11	780	18.6	163.4	1.98	689	19.4	147.8	1.79
80	88	884	18.6	17.9	15.8	17.2	17.9	2.51	5.9	10.0	0.36	5.22	24.0	93	3.36	0.196	0.188	5.6	0.29	2383	1179	147	46	B	M	0.2166	191.5	2.19	868	18.1	184.8	2.11	766	19.2	175.0	2.00	689	19.9	160.5	1.83
85	93	845	19.3	18.6	16.3	17.7	18.4	2.59	6.0	10.4	0.36	5.55	24.7	92	3.44	0.195	0.187	5.6	0.29	2435	1179	148	47	B	M	0.2383	201.4	2.18	832	18.8	194.8	2.10	749	19.7	185.6	2.00	684	20.4	172.3	1.86
90	98	808	20.0	19.2	16.8	18.1	18.8	2.66	6.1	10.7	0.36	5.87	25.3	91	3.52	0.194	0.187	5.7	0.30	2480	1179	148	47	B	M	0.2603	210.3	2.15	798	19.4	203.7	2.09	729	20.3	195.0	2.00	674	20.9	182.7	1.87
95	103	774	20.6	19.8	17.2	18.5	19.2	2.74	6.2	11.0	0.36	6.19	25.8	90	3.59	0.194	0.187	5.7	0.31	2519	1179	148	48	B	M	0.2822	218.4	2.13	766	20.0	211.9	2.07	709	20.8	203.6	1.98	662	21.3	192.2	1.87
100	108	742	21.2	20.5	17.6	18.9	19.6	2.80	6.3	11.2	0.36	6.50	26.2	89	3.67	0.194	0.187	5.7	0.32	2553	1179	148	48	B	M	0.3039	225.5	2.10	736	20.6	219.1	2.04	688	21.3	211.2	1.96	648	21.8	200.6	1.86
105	113	713	21.8	21.0	18.0	19.3	20.0	2.87	6.4	11.4	0.35	6.81	26.6	88	3.75	0.194	0.188	5.7	0.32	2583	1179	147	49	B	M	0.3257	232.2	2.06	708	21.1	225.8	2.01	668	21.8	218.2	1.94	633	22.3	208.3	1.85
110	118	685	22.4	21.6	18.3	19.6	20.3	2.94	6.5	11.6	0.35	7.11	26.9	87	3.82	0.195	0.188	5.7	0.33	2609	1179	147	49	B	M	0.3472	237.8	2.02	681	21.7	231.5	1.97	647	22.3	224.1	1.91	617	22.7	214.9	1.83
115	123	660	22.9	22.1	18.6	19.9	20.6	3.00	6.6	11.8	0.35	7.41	27.2	86	3.89	0.195	0.189	5.7	0.33	2632	1179	146	49	B	M	0.3683	243.1	1.98	657	22.2	236.9	1.93	627	22.8	229.7	1.87	602	23.2	221.1	1.80
120	128	637	23.4	22.7	19.0	20.2	20.9	3.06	6.7	12.0	0.35	7.70	27.5	86	3.96	0.196	0.189	5.7	0.33	2653	1179	146	49	B	M	0.3893	248.0	1.94	634	22.7	241.9	1.90	609	23.3	234.8	1.84	587	23.6	226.7	1.78
125	133	615	24.0	23.2	19.3	20.5	21.2	3.11	6.8	12.1	0.35	7.99	27.7	85	4.03	0.197	0.190	5.7	0.34	2672	1179	145	49	B	M	0.4099	252.1	1.90	613	23.2	246.1	1.86	591	23.7	239.1	1.80	572	24.1	231.5	1.75
130	138	595	24.4	23.7	19.5	20.8	21.4	3.17	6.8	12.3	0.35	8.27	27.9	84	4.10	0.197	0.191	5.6	0.34	2689	1179	144	49	B	M	0.4303	256.0	1.86	593	23.7	250.0	1.82	574	24.2	243.1	1.77	557	24.5	235.9	1.71
135	143	576	24.9	24.1	19.8	21.0	21.7	3.22	6.9	12.4	0.35	8.55	28.1	83	4.17	0.198	0.192	5.6	0.34	2705	1179	143	49	B	M	0.4502	259.3	1.82	574	24.2	253.3	1.78	558	24.6	246.6	1.73	543	24.9	239.8	1.68
140	148	559	25.4	24.6	20.0	21.2	21.9	3.27	7.0	12.5	0.35	8.82	28.3	82	4.23	0.199	0.193	5.6	0.35	2719	1179	143	49	B	M	0.4698	262.6	1.78	558	24.6	256.6	1.74	543	25.0	249.9	1.69	530	25.3	243.5	1.65
145	153	543	25.8	25.0	20.3	21.5	22.1	3.32	7.1	12.6	0.36	9.09	28.5	81	4.29	0.200	0.194	5.6	0.35	2733	1179	142	49	B	M	0.4888	265.4	1.74	542	25.1	259.5	1.70	529	25.4	252.9	1.66	517	25.7	246.7	1.62
150	158	528	26.3	25.5	20.5	21.7	22.3	3.37	7.1	12.7	0.36	9.35	28.6	81	4.35	0.201	0.195	5.6	0.35	2746	1179	141	49	B	M	0.5074	267.9	1.70	527	25.5	262.0	1.66	516	25.8	255.5	1.62	505	26.1	249.6	1.58
155	163	514	26.7	25.9	20.7	21.9	22.5	3.42	7.2	12.7	0.36	9.60	28.7	80	4.41	0.202	0.196	5.6	0.35	2759	1179	140	49	B	M	0.5255	270.1	1.66	513	25.9	264.3	1.63	503	26.2	257.8	1.59	494	26.4	252.2	1.55
160	168	501	27.1	26.3	20.9	22.1	22.7	3.46	7.2	12.8	0.36	9.85	28.9	79	4.47	0.202	0.197	5.5	0.36	2771	1179	140	49	B	M	0.5433	272.2	1.62	500	26.3	266.3	1.59	491	26.6	259.9	1.55	483	26.8	254.6	1.52
165	173	489	27.5	26.7	21.1	22.2	22.9	3.51	7.3	12.8	0.36	10.10	29.0	78	4.52	0.203	0.198	5.5	0.36	2783	1179	139	49	B	M	0.5605	274.1	1.59	489	26.7	268.3	1.55	480	27.0	261.9	1.52	473	27.2	256.8	1.49
170	178	478	27.9	27.0	21.3	22.4	23.0	3.55	7.4	12.9	0.36	10.34	29.1	78	4.57	0.204	0.198	5.5	0.36	2795	1179	138	49	B	M	0.5774	276.0	1.55	478	27.0	270.2	1.52	470	27.3	263.8	1.49	463	27.5	258.9	1.46
175	183	467	28.2	27.4	21.5	22.6	23.2	3.59	7.4	12.9	0.36	10.58	29.2	77	4.63	0.205	0.199	5.5	0.36	2807	1179	138	49	B	M	0.5938	277.3	1.52	467	27.4	271.5	1.49	460	27.7	265.2	1.45	454	27.9	260.5	1.43
180	188	457	28.6	27.8	21.6	22.7	23.4	3.63	7.5	12.9	0.36	10.81	29.3	76	4.68	0.206	0.200	5.5	0.36	2818	1179	137	49	B	M	0.6096	278.6	1.49	457	27.8	272.8	1.45	451	28.0	266.5	1.42	445	28.2	262.0	1.40
SI = 14 m Initial Density = 2000 stems/ha																																								
5	13	1987	1.9	1.8	2.3	2.7	2.8	0.73	1.8	0.4	0.82	0.42	0.6	141	2.24	0.842	0.813	0.4	0.01	306	1389	21	8	A	M	0.0004	0.7	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	1957	3.7	3.4	3.5	4.1	4.3	0.87	2.5	0.9	0.72	0.61	2.1	113	2.26	0.545	0.523	1.1	0.02	485	1389	40	12	A	M	0.0020	3.9	0.22	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	1911	5.2	4.9	4.8	5.6	5.9	1.02	3.1	1.7	0.63	0.85	4.1	107	2.29	0.408	0.390	1.8	0.04	697	1389	60	16	A	M	0.0057	10.8	0.48	106	8.7	1.4	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	1852	6.7	6.3	6.0	7.0	7.3	1.17	3.5	2.6	0.57	1.12	6.4	106	2.32	0.332	0.317	2.5	0.07	921	1389	78	21	A	M	0.0114	21.2	0.77	512	9.1	9.4	0.34	10	12.8	0.4	0.01	0	0.0	0.0	0.00
25	33	1784	7.9	7.5	7.2	8.3	8.7	1.31	3.8	3.4	0.52	1.41	8.8	104	2.37	0.286	0.272	3.1	0.10	1145	1389	95	25	A	M	0.0195	34.7	1.06	892	9.6	22.8	0.70	76	13.2	4.1	0.13	14	14.8	0.8	0.02
30	38	1709	9.1	8.6	8.2	9.5	10.0	1.44	4.1	4.3	0.48	1.72	11.2	104	2.42	0.255	0.243	3.7	0.12	1359	1389	109	29	A	M	0.0295	50.5	1.34	1125	10.3	39.1	1.04	216	13.6	14.0	0.37	68	15.1	4.9	0.13
35	43	1629	10.3	9.7	9.3	10.6	11.1	1.56	4.3	5.1	0.45	2.03	13.5	103	2.48	0.234	0.223	4.2	0.15	1558	1389	121	33	B	M	0.0414	67.5	1.58	1243	11.0	56.8	1.33	388	14.0	29.6	0.69	168	15.4	14.0	0.33
40	48	1549	11.3	10.7	10.2	11.6	12.2	1.68	4.5	5.9	0.43	2.35	15.5	102	2.54	0.219	0.209	4.6	0.18	1738	1389	131	36	B	M	0.0551	85.3	1.79	1288	11.8	75.2	1.58	550	14.5	48.6	1.02	295	15.8	28.2	0.59
45	53	1468	12.3	11.7	11.1	12.5	13.1	1.79	4.7	6.6	0.41	2.68	17.4	101	2.61	0.209	0.199	5.0	0.20	1898	1389	139	39	B	M	0.0701	102.9	1.96	1289	12.6	93.4	1.78	679	15.0	68.9	1.31	420	16.2	45.8	0.87
50	58	1389	13.2	12.6	11.9	13.3	14.0	1.90	4.8	7.2	0.40	3.01	19.1	100	2.68	0.201	0.192	5.3	0.22	2038	1389	146	42	B	M	0.0865	120.1	2.09	1263	13.3	111.0	1.93	771	15.5	89.1	1.55	529	16.6	65.0	1.13
55	63	1314	14.1	13.5	12.6	14.1	14.8	2.00	5.0	7.8	0.39	3.34	20.6	99	2.76	0.195	0.186	5.5	0.24	2160	1389	151	44	B	M	0.1039	136.5	2.18	1224	14.1	127.8	2.04	831	16.0	108.4	1.73	615	17.1	84.6	1.35
60	68	1242	15.0	14.3	13.3	14.8	15.5	2.10	5.1	8.3	0.38	3.67	21.9	98	2.84	0.191	0.183	5.7	0.26	2264	1389	154	46	B	M	0.1223	151.9	2.25	1177	14.8	143.5	2.12	864	16.6	126.3	1.87	677	17.5	103.6	1.53
65	73	1174	15.8	15.1	14.0	15.5	16.2	2.19	5.3	8.8	0.37	3.99	23.0	97	2.92	0.189	0.180	5.8	0.27	2353	1389	157	47	B	M	0.1415	166.1	2.29	1126	15.5	158.0	2.18	877	17.1	142.7	1.97	717	18.0	121.3	1.67
70	78	1111	16.6	15.9	14.6	16.1	16.8	2.28	5.4	9.3	0.36	4.32	24.0	96	3.00	0.187	0.178	5.9	0.28	2428	1389	158	48	B	M	0.1613	179.2	2.31	1075	16.3	171.3	2.21	876	17.7	157.7	2.03	741	18.5	137.8	1.78
75	83	1052	17.3	16.6	15.1	16.6	17.4	2.37	5.5	9.7	0.36	4.65	24.8	95	3.08	0.185	0.177	6.0	0.30	2491	1389	159	49	B	M	0.1817	191.1	2.31	1025	16.9	183.5	2.22	865	18.2	171.1	2.07	752	19.0	152.8	1.85
80	88	998	18.1	17.4	15.7	17.1	17.9	2.45	5.7	10.0	0.36	4.97	25.6	94	3.17	0.185	0.177	6.0	0.31	2545	1389	160	50	B	M	0.2024	202.0	2.31	977	17.6	194.5	2.22	848	18.7	183.2	2.09	753	19.5	166.4	1.90
85	93	948	18.8	18.0	16.2	17.6	18.4	2.53	5.8	10.4	0.35	5.29	26.2	93	3.25	0.184	0.177	6.0	0.31	2590	1389	160	50	C	M	0.2234	211.8	2.29	932	18.2	204.5	2.21	827	19.3	194.1	2.10	747	20.0	178.6	1.93
90	98	901	19.4	18.7	16.6	18.1	18.8	2.60	5.9	10.7	0.35	5.61	26.7	92	3.33	0.184	0.177	6.1	0.32	2628	1389	159	51	C	M	0.2446	220.4	2.26	888	18.9	213.3	2.19	802	19.8	203.5	2.09	735	20.4	189.3	1.94
95	103	859	20.1	19.3	17.0	18.5	19.2	2.68	6.0	11.0	0.35	5.92	27.1	91	3.41	0.185	0.177	6.1	0.33	2660	1389	159	51	C	M	0.2659	228.4	2.23	849	19.5	221.4	2.16	778	20.3	212.2	2.07	721	20.9	199.1	1.94
100	108	819	20.7	19.9	17.4	18.9	19.6	2.75	6.1	11.2	0.35	6.23	27.5	90	3.49	0.185	0.178	6.0	0.33	2687	1389	158	51	C	M	0.2873	235.3	2.19	811	20.1	228.4	2.12	752	20.9	219.7	2.04	704	21.4	207.6	1.93
105	113	783	21.3	20.5	17.8	19.2	20.0	2.81	6.2	11.4	0.35	6.54	27.8	89	3.57	0.186	0.179	6.0	0.34	2710	1389	157	51	C	M	0.3086	241.6	2.15	777	20.6	234.8	2.09	727	21.4	226.4	2.01	686	21.9	215.2	1.91
110	118	750	21.9	21.1	18.2	19.6	20.3	2.88	6.3	11.6	0.35	6.84	28.1	88	3.65	0.187	0.180	6.0	0.34	2730	1389	156	51	C	M	0.3296	247.2	2.10	745	21.2	240.6	2.05	703	21.9	232.5	1.98	668	22.3	222.1	1.89
115	123	719	22.4	21.6	18.5	19.9	20.6	2.94	6.4	11.8	0.35	7.14	28.4	87	3.73	0.188	0.181	6.0	0.35	2747	1389	155	51	C	M	0.3506	252.1	2.06	715	21.7	245.5	2.00	680	22.3	237.7	1.94	649	22.8	228.0	1.86
120	128	691	22.9	22.2	18.8	20.2	20.9	3.00	6.5	12.0	0.35	7.43	28.6	87	3.80	0.189	0.182	6.0	0.35	2761	1389	153	51	C	M	0.3713	256.6	2.01	688	22.2	250.1	1.96	658	22.8	242.5	1.90	631	23.2	233.5	1.83
125	133	665	23.5	22.7	19.1	20.4	21.2	3.06	6.6	12.1	0.35	7.71	28.8	86	3.88	0.190	0.183	5.9	0.35	2774	1389	152	51	C	M	0.3917	260.5	1.96	662	22.8	254.1	1.92	636	23.3	246.7	1.86	613	23.7	238.2	1.80
130	138	641	24.0	23.2	19.4	20.7	21.4	3.12	6.7	12.3	0.35	8.00	28.9	85	3.95	0.191	0.184	5.9	0.35	2786	1389	151	51	C	M	0.4119	264.0	1.92	639	23.2	257.6	1.87	616	23.7	250.4	1.82	596	24.1	242.4	1.76
135	143	619	24.4	23.7	19.6	21.0	21.7	3.17	6.8	12.4	0.35	8.27	29.1	84	4.02	0.192	0.185	5.9	0.36	2797	1389	150	51	C	M	0.4315	267.1	1.87	617	23.7	260.8	1.83	598	24.1	253.8	1.78	580	24.5	246.3	1.73
140	148	599	24.9	24.1	19.9	21.2	21.9	3.22	6.8	12.5	0.35	8.54	29.2	83	4.09	0.193	0.186	5.9	0.36	2807	1389	149	51	C	M	0.4509	270.1	1.83	597	24.2	263.9	1.79	580	24.6	256.9	1.74	565	24.9	249.8	1.69
145	153	580	25.4	24.6	20.1	21.4	22.1	3.27	6.9	12.6	0.35	8.81	29.3	82	4.15	0.194	0.188	5.8	0.36	2816	1389	148	51	C	M	0.4700	272.6	1.79	579	24.6	266.4	1.75	564	25.0	259.5	1.70	550	25.3	252.8	1.66
150	158	563	25.8	25.0	20.3	21.6	22.3	3.32	7.0	12.7	0.35	9.07	29.5	82	4.21	0.195	0.189	5.8	0.36	2825	1389	147	51	C	M	0.4886	275.1	1.75	562	25.0	268.9	1.71	549	25.4	262.1	1.66	536	25.7	255.7	1.62
155	163	546	26.2	25.4	20.5	21.8	22.5	3.37	7.1	12.7	0.35	9.33	29.5	81	4.28	0.196	0.190	5.8	0.36	2833	1389	146	51	C	M	0.5068	276.7	1.70	545	25.5	270.6	1.66	533	25.8	263.8	1.62	522	26.1	257.8	1.59
160	168	531	26.6	25.8	20.7	22.0	22.7	3.41	7.1	12.8	0.35	9.58	29.6	80	4.34	0.197	0.191	5.7	0.37	2842	1389	145	51	C	M	0.5245	278.5	1.66	530	25.9	272.4	1.63	520	26.2	265.8	1.59	510	26.4	260.0	1.55
165	173	517	27.1	26.2	20.9	22.2	22.9	3.46	7.2	12.8	0.35	9.83	29.7	79	4.40	0.198	0.192	5.7	0.37	2850	1389	144	51	C	M	0.5418	280.1	1.62	516	26.3	274.1	1.59	507	26.5	267.5	1.55	498	26.8	261.9	1.52
170	178	504	27.4	26.6	21.1	22.4	23.0	3.50	7.2	12.9	0.36	10.07	29.8	78	4.45	0.199	0.193	5.7	0.37	2858	1389	143	51	C	M	0.5587	281.6	1.59	504	26.6	275.6	1.55	495	26.9	269.0	1.51	487	27.1	263.7	1.48
175	183	492	27.8	27.0	21.3	22.5	23.2	3.54	7.3	12.9	0.36	10.31	29.9	78	4.51	0.200	0.194	5.7	0.37	2867	1389	142	51	C	M	0.5750	282.9	1.55	492	27.0	277.0	1.52	484	27.3	270.4	1.48	477	27.5	265.4	1.45
180	188	481	28.2	27.4	21.5	22.7	23.4	3.58	7.3	12.9	0.36	10.55	30.0	77	4.56	0.201	0.195	5.7	0.37	2875	1389	142	51	C	M	0.5911	284.3	1.52	481	27.4	278.4	1.48	474	27.6	271.9	1.45	467	27.8	267.0	1.42

Table A57. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume) N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	Util. std. = 8/6 N	D	V/ha	Mai	Util. std. = 13/7 N	D	V/ha	Mai	Util. std = 15/10 N	D	V/ha	Mai
SI = 14 m Initial Density = 3000 stems/ha																																								
5	13	2974	1.7	1.6	2.2	2.7	2.8	0.72	1.7	0.4	0.80	0.41	0.7	153	1.83	0.690	0.665	0.5	0.01	438	1863	28	12	A	M	0.0003	0.8	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	2912	3.3	3.1	3.5	4.1	4.3	0.84	2.3	1.0	0.69	0.57	2.6	120	1.85	0.448	0.429	1.4	0.03	663	1863	54	17	A	M	0.0016	4.6	0.26	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	2821	4.8	4.5	4.7	5.6	5.9	0.98	2.8	1.8	0.60	0.77	5.0	113	1.88	0.337	0.321	2.3	0.05	923	1863	79	22	A	M	0.0045	12.7	0.56	64	8.6	0.8	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	2705	6.1	5.7	5.9	7.0	7.3	1.11	3.2	2.6	0.54	1.00	7.8	111	1.92	0.276	0.262	3.2	0.09	1192	1863	102	27	A	M	0.0092	24.9	0.90	501	8.8	8.2	0.30	3	12.6	0.1	0.00	0	0.0	0.0	0.00
25	33	2573	7.3	6.9	7.0	8.2	8.7	1.24	3.5	3.5	0.49	1.26	10.7	109	1.97	0.239	0.226	4.0	0.12	1455	1863	122	32	B	M	0.0158	40.6	1.25	1034	9.2	23.0	0.71	41	13.0	2.1	0.06	5	14.5	0.3	0.01
30	38	2430	8.4	7.9	8.1	9.4	10.0	1.36	3.7	4.3	0.45	1.53	13.4	108	2.03	0.215	0.204	4.6	0.15	1700	1863	139	37	B	M	0.0241	58.6	1.56	1403	9.8	41.8	1.11	163	13.3	10.0	0.27	36	14.9	2.5	0.07
35	43	2284	9.4	9.0	9.1	10.5	11.1	1.48	3.9	5.1	0.43	1.80	16.0	107	2.09	0.199	0.188	5.2	0.18	1920	1863	153	41	B	M	0.0341	77.9	1.83	1600	10.5	62.4	1.47	352	13.7	25.0	0.59	119	15.1	9.3	0.22
40	48	2138	10.5	9.9	10.0	11.5	12.2	1.59	4.1	5.9	0.40	2.09	18.3	106	2.16	0.188	0.178	5.7	0.21	2113	1863	164	45	B	M	0.0457	97.7	2.05	1679	11.1	83.4	1.75	556	14.1	45.4	0.95	249	15.5	22.2	0.47
45	53	1997	11.4	10.9	10.8	12.4	13.1	1.70	4.3	6.6	0.39	2.39	20.4	105	2.24	0.180	0.170	6.0	0.24	2279	1863	172	48	B	M	0.0587	117.2	2.23	1683	11.8	103.9	1.98	735	14.5	68.3	1.30	397	15.8	40.0	0.76
50	58	1863	12.3	11.7	11.6	13.3	14.0	1.80	4.4	7.2	0.37	2.69	22.2	104	2.32	0.175	0.165	6.3	0.26	2419	1863	178	50	C	M	0.0729	135.9	2.36	1645	12.6	123.6	2.15	871	14.9	91.6	1.59	538	16.2	60.8	1.06
55	63	1737	13.2	12.6	12.4	14.0	14.8	1.90	4.6	7.8	0.37	2.99	23.7	103	2.40	0.171	0.162	6.5	0.28	2535	1863	182	52	C	M	0.0884	153.5	2.45	1584	13.3	142.0	2.27	963	15.4	113.8	1.82	657	16.6	82.7	1.32
60	68	1620	14.0	13.4	13.1	14.7	15.5	1.99	4.7	8.3	0.36	3.30	25.0	101	2.48	0.169	0.160	6.7	0.30	2631	1863	184	53	C	M	0.1048	169.8	2.51	1510	14.0	159.0	2.35	1017	15.9	134.4	1.99	746	17.0	104.1	1.54
65	73	1512	14.8	14.2	13.7	15.4	16.2	2.08	4.9	8.8	0.35	3.61	26.1	100	2.57	0.167	0.159	6.8	0.31	2709	1863	185	55	C	M	0.1221	184.6	2.54	1432	14.7	174.4	2.40	1042	16.4	153.0	2.11	809	17.4	124.4	1.71
70	78	1414	15.6	15.0	14.3	16.0	16.8	2.17	5.0	9.2	0.35	3.92	27.1	99	2.66	0.166	0.158	6.8	0.32	2771	1863	186	55	C	M	0.1402	198.2	2.55	1355	15.4	188.4	2.43	1045	16.9	169.6	2.19	848	17.9	143.2	1.85
75	83	1324	16.4	15.7	14.8	16.5	17.4	2.26	5.1	9.6	0.34	4.23	27.8	98	2.75	0.166	0.158	6.9	0.33	2821	1863	185	56	C	M	0.1588	210.3	2.55	1280	16.0	201.0	2.43	1033	17.5	184.3	2.23	867	18.3	160.0	1.94
80	88	1242	17.1	16.4	15.4	17.0	17.9	2.34	5.3	10.0	0.34	4.54	28.5	97	2.84	0.166	0.159	6.9	0.34	2861	1863	184	56	C	M	0.1780	221.1	2.52	1209	16.7	212.1	2.42	1011	18.0	197.3	2.25	872	18.8	175.0	2.00
85	93	1168	17.8	17.1	15.8	17.5	18.4	2.42	5.4	10.3	0.34	4.85	29.0	96	2.93	0.167	0.159	6.9	0.35	2891	1863	183	57	C	M	0.1976	230.8	2.49	1142	17.3	222.1	2.40	983	18.5	208.7	2.25	867	19.3	188.5	2.04
90	98	1100	18.4	17.7	16.3	18.0	18.8	2.49	5.5	10.6	0.34	5.15	29.4	95	3.02	0.168	0.160	6.8	0.36	2915	1863	181	57	C	M	0.2175	239.2	2.45	1080	18.0	230.9	2.37	951	19.0	218.6	2.24	854	19.7	200.1	2.05
95	103	1039	19.1	18.4	16.7	18.4	19.2	2.57	5.7	10.9	0.34	5.46	29.7	94	3.10	0.169	0.161	6.8	0.36	2933	1863	179	57	C	M	0.2375	246.8	2.41	1023	18.6	238.7	2.33	918	19.5	227.4	2.22	836	20.2	210.5	2.05
100	108	983	19.7	19.0	17.1	18.8	19.6	2.64	5.8	11.2	0.34	5.76	30.0	93	3.19	0.170	0.163	6.8	0.37	2946	1863	177	57	C	M	0.2578	253.4	2.36	971	19.2	245.5	2.28	884	20.0	234.9	2.18	815	20.6	219.5	2.04
105	113	933	20.3	19.6	17.5	19.1	20.0	2.71	5.9	11.4	0.34	6.05	30.3	92	3.27	0.171	0.164	6.7	0.37	2956	1863	175	56	C	M	0.2780	259.4	2.30	923	19.7	251.7	2.24	851	20.6	241.7	2.15	793	21.1	227.6	2.02
110	118	887	20.9	20.2	17.8	19.4	20.3	2.77	6.0	11.6	0.34	6.35	30.4	91	3.36	0.173	0.165	6.7	0.37	2963	1863	173	56	C	M	0.2983	264.6	2.25	879	20.3	257.0	2.19	819	21.0	247.6	2.11	770	21.6	234.6	2.00
115	123	845	21.5	20.7	18.1	19.8	20.6	2.84	6.1	11.8	0.34	6.64	30.6	90	3.44	0.174	0.167	6.6	0.37	2968	1863	171	56	C	M	0.3183	269.0	2.19	839	20.8	261.7	2.13	788	21.5	252.6	2.06	746	22.0	240.7	1.96
120	128	806	22.0	21.3	18.5	20.1	20.9	2.90	6.2	12.0	0.34	6.93	30.7	89	3.52	0.176	0.168	6.5	0.38	2972	1863	169	56	C	M	0.3383	272.7	2.14	801	21.4	265.5	2.08	758	22.0	256.8	2.01	722	22.4	245.7	1.93
125	133	771	22.5	21.8	18.7	20.3	21.2	2.96	6.3	12.1	0.34	7.21	30.8	88	3.60	0.177	0.170	6.5	0.38	2974	1863	167	56	C	M	0.3581	276.1	2.08	767	21.9	269.0	2.03	730	22.5	260.7	1.97	699	22.9	250.4	1.89
130	138	740	23.1	22.3	19.0	20.6	21.4	3.01	6.4	12.3	0.34	7.49	30.9	87	3.68	0.179	0.171	6.4	0.38	2976	1863	165	55	C	M	0.3777	279.5	2.03	736	22.4	272.5	1.98	705	22.9	264.4	1.92	678	23.3	254.8	1.85
135	143	710	23.5	22.8	19.3	20.8	21.7	3.07	6.5	12.4	0.34	7.76	30.9	86	3.75	0.180	0.173	6.4	0.38	2977	1863	163	55	C	M	0.3970	281.9	1.98	707	22.8	275.0	1.93	680	23.3	267.1	1.87	656	23.7	258.1	1.81
140	148	683	24.0	23.2	19.5	21.1	21.9	3.12	6.6	12.5	0.34	8.03	31.0	85	3.83	0.182	0.175	6.3	0.38	2977	1863	161	55	C	M	0.4160	284.1	1.92	681	23.3	277.3	1.88	657	23.8	269.6	1.83	636	24.1	261.2	1.77
145	153	659	24.5	23.7	19.8	21.3	22.1	3.17	6.6	12.6	0.34	8.30	31.0	84	3.90	0.183	0.176	6.3	0.38	2978	1863	160	55	C	M	0.4347	286.5	1.88	657	23.8	279.7	1.83	637	24.2	272.2	1.78	618	24.5	264.2	1.73
150	158	636	24.9	24.1	20.0	21.5	22.3	3.22	6.7	12.7	0.34	8.56	31.1	83	3.97	0.184	0.178	6.2	0.38	2978	1863	158	54	C	M	0.4530	288.1	1.83	634	24.2	281.5	1.79	617	24.6	274.1	1.74	600	24.9	266.6	1.69
155	163	615	25.4	24.6	20.2	21.7	22.5	3.27	6.8	12.7	0.34	8.81	31.1	82	4.03	0.186	0.179	6.2	0.38	2979	1863	157	54	C	M	0.4709	289.6	1.78	614	24.6	283.1	1.74	598	25.0	275.8	1.70	583	25.3	268.7	1.65
160	168	595	25.8	25.0	20.4	21.9	22.7	3.32	6.9	12.8	0.35	9.07	31.1	82	4.10	0.187	0.181	6.1	0.38	2980	1863	155	54	C	M	0.4886	290.7	1.73	594	25.0	284.2	1.70	580	25.4	277.0	1.65	567	25.7	270.3	1.61
165	173	578	26.2	25.4	20.6	22.1	22.9	3.37	6.9	12.8	0.35	9.31	31.2	81	4.16	0.189	0.182	6.1	0.38	2982	1863	154	54	C	M	0.5057	292.3	1.69	577	25.4	285.9	1.66	565	25.8	278.8	1.62	553	26.0	272.4	1.58
170	178	561	26.6	25.8	20.8	22.2	23.0	3.41	7.0	12.9	0.35	9.56	31.2	80	4.22	0.190	0.183	6.0	0.38	2983	1863	153	54	C	M	0.5225	293.1	1.65	560	25.8	286.7	1.61	549	26.1	279.7	1.57	539	26.4	273.6	1.54
175	183	545	27.0	26.2	20.9	22.4	23.2	3.45	7.1	12.9	0.35	9.80	31.2	79	4.28	0.191	0.185	6.0	0.38	2985	1863	151	53	C	M	0.5389	293.7	1.61	544	26.2	287.3	1.57	534	26.5	280.4	1.54	525	26.7	274.6	1.50
180	188	531	27.4	26.5	21.1	22.5	23.4	3.49	7.1	12.9	0.35	10.03	31.2	78	4.34	0.192	0.186	6.0	0.39	2988	1863	150	53	C	M	0.5548	294.6	1.57	530	26.6	288.3	1.54	522	26.8	281.5	1.50	513	27.1	275.9	1.47
SI = 14 m Initial Density = 4000 stems/ha																																								
5	13	3958	1.6	1.5	2.2	2.7	2.8	0.71	1.6	0.4	0.78	0.40	0.8	163	1.59	0.600	0.576	0.6	0.01	566	2289	35	16	A	M	0.0002	0.9	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	3860	3.1	2.9	3.4	4.1	4.3	0.82	2.2	1.0	0.67	0.54	2.9	126	1.61	0.390	0.372	1.7	0.03	829	2289	65	21	A	M	0.0013	5.2	0.30	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	3715	4.4	4.2	4.6	5.6	5.9	0.95	2.6	1.8	0.58	0.72	5.8	118	1.64	0.295	0.280	2.7	0.06	1128	2289	95	27	A	M	0.0038	14.1	0.62	37	8.5	0.4	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	3534	5.7	5.3	5.8	6.9	7.3	1.07	3.0	2.7	0.52	0.93	8.9	115	1.68	0.242	0.229	3.8	0.10	1432	2289	123	33	B	M	0.0078	27.7	1.00	455	8.6	6.9	0.25	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	3330	6.8	6.4	6.9	8.2	8.7	1.19	3.2	3.5	0.47	1.16	12.2	113	1.73	0.211	0.199	4.7	0.14	1723	2289	146	39	B	M	0.0135	45.0	1.38	1100	9.0	22.3	0.68	22	12.9	1.1	0.03	2	14.2	0.1	0.00
30	38	3113	7.9	7.5	7.9	9.4	10.0	1.30	3.5	4.3	0.43	1.40	15.2	111	1.79	0.191	0.180	5.4	0.18	1989	2289	165	44	B	M	0.0208	64.7	1.72	1596	9.5	42.8	1.14	118	13.1	7.0	0.19	19	14.7	1.3	0.03
35	43	2895	8.9	8.4	8.9	10.5	11.1	1.42	3.6	5.1	0.41	1.66	18.0	110	1.86	0.177	0.167	6.0	0.21	2222	2289	179	48	B	M	0.0296	85.7	2.01	1879	10.1	65.5	1.54	302	13.4	20.6	0.48	83	15.0	6.3	0.15
40	48	2682	9.9	9.4	9.8	11.5	12.2	1.52	3.8	5.9	0.39	1.92	20.5	109	1.93	0.168	0.159	6.5	0.24	2422	2289	190	52	C	M	0.0399	107.0	2.25	1999	10.7	88.6	1.86	529	13.8	41.1	0.86	202	15.2	17.3	0.36
45	53	2479	10.8	10.3	10.7	12.4	13.1	1.63	4.0	6.5	0.37	2.20	22.7	108	2.01	0.162	0.153	6.9	0.27	2588	2289	198	55	C	M	0.0515	127.7	2.43	2015	11.4	111.0	2.11	744	14.2	65.3	1.24	357	15.5	34.2	0.65
50	58	2289	11.7	11.1	11.4	13.2	14.0	1.73	4.1	7.2	0.36	2.48	24.6	106	2.09	0.158	0.149	7.2	0.29	2725	2289	204	57	C	M	0.0644	147.4	2.56	1969	12.1	132.2	2.30	919	14.6	90.8	1.58	518	15.9	55.3	0.96
55	63	2114	12.5	12.0	12.2	14.0	14.8	1.83	4.3	7.7	0.35	2.77	26.1	105	2.17	0.156	0.147	7.4	0.31	2835	2289	207	58	C	M	0.0784	165.8	2.65	1890	12.7	151.8	2.43	1043	15.0	115.3	1.84	661	16.3	78.4	1.25
60	68	1954	13.4	12.8	12.8	14.7	15.5	1.92	4.4	8.3	0.34	3.06	27.4	104	2.26	0.154	0.146	7.5	0.33	2922	2289	208	60	C	M	0.0935	182.7	2.70	1795	13.4	169.7	2.51	1120	15.5	138.0	2.04	776	16.6	101.7	1.50
65	73	1809	14.2	13.6	13.5	15.3	16.2	2.01	4.6	8.7	0.34	3.35	28.5	102	2.35	0.153	0.145	7.6	0.34	2989	2289	208	61	C	M	0.1095	198.0	2.73	1694	14.1	185.9	2.56	1160	16.0	158.5	2.18	860	17.0	123.9	1.71
70	78	1678	14.9	14.3	14.0	15.9	16.8	2.10	4.7	9.2	0.34	3.65	29.4	101	2.44	0.153	0.145	7.6	0.36	3041	2289	208	61	C	M	0.1262	211.8	2.73	1594	14.8	200.4	2.58	1171	16.5	176.6	2.28	915	17.5	144.5	1.86
75	83	1559	15.7	15.0	14.6	16.5	17.4	2.18	4.9	9.6	0.33	3.94	30.1	100	2.53	0.154	0.146	7.6	0.36	3079	2289	206	61	C	M	0.1436	223.9	2.71	1497	15.4	213.1	2.58	1161	17.0	192.4	2.33	945	17.9	162.9	1.97
80	88	1453	16.4	15.7	15.1	17.0	17.9	2.26	5.0	10.0	0.33	4.24	30.6	99	2.62	0.155	0.147	7.6	0.37	3106	2289	204	62	C	M	0.1616	234.8	2.68	1406	16.1	224.6	2.56	1139	17.5	206.3	2.36	957	18.3	179.3	2.05
85	93	1357	17.1	16.4	15.6	17.4	18.4	2.34	5.1	10.3	0.33	4.54	31.1	98	2.71	0.156	0.148	7.5	0.38	3126	2289	201	62	C	M	0.1801	244.4	2.64	1321	16.7	234.6	2.53	1107	18.0	218.3	2.36	955	18.8	193.8	2.09
90	98	1271	17.7	17.1	16.0	17.9	18.8	2.42	5.3	10.6	0.33	4.83	31.4	97	2.80	0.157	0.149	7.5	0.38	3138	2289	199	61	C	M	0.1989	252.8	2.59	1243	17.3	243.4	2.49	1071	18.5	228.7	2.34	944	19.2	206.5	2.12
95	103	1193	18.4	17.7	16.4	18.3	19.2	2.49	5.4	10.9	0.33	5.13	31.7	95	2.90	0.158	0.151	7.4	0.39	3145	2289	196	61	C	M	0.2179	260.0	2.53	1172	17.9	251.0	2.45	1031	19.0	237.6	2.32	925	19.7	217.4	2.12
100	108	1124	19.0	18.3	16.8	18.7	19.6	2.56	5.5	11.1	0.33	5.42	31.9	94	2.98	0.160	0.152	7.3	0.39	3148	2289	193	61	C	M	0.2372	266.6	2.48	1107	18.5	257.9	2.40	992	19.5	245.6	2.28	903	20.1	227.2	2.11
105	113	1060	19.6	18.9	17.2	19.0	20.0	2.63	5.6	11.4	0.33	5.71	32.0	93	3.07	0.161	0.154	7.2	0.39	3148	2289	190	61	C	M	0.2566	272.0	2.42	1047	19.1	263.5	2.34	952	20.0	252.1	2.24	877	20.6	235.3	2.09
110	118	1003	20.2	19.5	17.5	19.4	20.3	2.69	5.8	11.6	0.33	6.00	32.2	92	3.16	0.163	0.156	7.2	0.39	3146	2289	187	60	C	M	0.2760	276.8	2.35	992	19.6	268.6	2.28	914	20.4	257.9	2.19	850	21.0	242.5	2.06
115	123	952	20.8	20.0	17.9	19.7	20.6	2.76	5.9	11.8	0.33	6.28	32.3	91	3.24	0.165	0.157	7.1	0.40	3142	2289	184	60	C	M	0.2954	281.2	2.29	943	20.2	273.1	2.23	878	20.9	263.1	2.15	823	21.4	248.9	2.03
120	128	905	21.3	20.6	18.2	20.0	20.9	2.82	6.0	11.9	0.33	6.56	32.3	90	3.32	0.167	0.159	7.0	0.40	3136	2289	182	59	C	M	0.3147	284.8	2.23	898	20.7	276.9	2.17	843	21.4	267.3	2.09	796	21.9	254.3	1.99
125	133	862	21.8	21.1	18.5	20.2	21.2	2.88	6.1	12.1	0.33	6.84	32.3	89	3.41	0.168	0.161	6.9	0.40	3131	2289	179	59	C	M	0.3339	287.8	2.17	856	21.2	280.1	2.11	809	21.8	270.9	2.04	769	22.3	258.8	1.95
130	138	823	22.4	21.6	18.7	20.5	21.4	2.94	6.2	12.2	0.33	7.11	32.3	88	3.49	0.170	0.163	6.8	0.40	3124	2289	176	59	C	M	0.3529	290.4	2.11	818	21.7	282.8	2.06	778	22.3	274.0	1.99	744	22.7	262.9	1.91
135	143	788	22.9	22.1	19.0	20.7	21.7	2.99	6.3	12.3	0.33	7.38	32.3	87	3.56	0.172	0.164	6.8	0.40	3118	2289	174	58	C	M	0.3716	292.8	2.05	784	22.2	285.4	2.00	750	22.7	276.9	1.94	719	23.1	266.5	1.87
140	148	756	23.3	22.6	19.2	21.0	21.9	3.05	6.3	12.4	0.33	7.65	32.4	86	3.64	0.173	0.166	6.7	0.40	3112	2289	172	58	C	M	0.3902	295.0	2.00	753	22.6	287.7	1.95	723	23.2	279.4	1.89	697	23.5	269.7	1.83
145	153	726	23.8	23.0	19.5	21.2	22.1	3.10	6.4	12.5	0.34	7.91	32.3	85	3.71	0.175	0.168	6.6	0.40	3106	2289	170	57	C	M	0.4084	296.5	1.94	723	23.1	289.3	1.90	697	23.6	281.2	1.84	674	23.9	272.1	1.78
150	158	699	24.3	23.5	19.7	21.4	22.3	3.15	6.5	12.6	0.34	8.17	32.3	84	3.78	0.177	0.169	6.6	0.40	3100	2289	168	57	C	M	0.4263	298.0	1.89	697	23.5	291.0	1.85	674	24.0	283.0	1.80	654	24.3	274.5	1.74
155	163	674	24.7	23.9	19.9	21.6	22.5	3.20	6.6	12.7	0.34	8.42	32.3	84	3.85	0.178	0.171	6.5	0.40	3095	2289	166	57	C	M	0.4441	299.3	1.84	672	24.0	292.3	1.80	652	24.4	284.5	1.75	634	24.7	276.5	1.70
160	168	650	25.1	24.3	20.1	21.8	22.7	3.25	6.7	12.8	0.34	8.67	32.3	83	3.92	0.180	0.173	6.4	0.40	3090	2289	164	56	C	M	0.4612	299.8	1.79	648	24.4	293.0	1.75	631	24.8	285.4	1.70	615	25.1	277.8	1.66
165	173	629	25.6	24.8	20.3	22.0	22.9	3.29	6.7	12.8	0.34	8.92	32.3	82	3.99	0.182	0.174	6.4	0.40	3086	2289	162	56	C	M	0.4782	300.8	1.74	628	24.8	294.0	1.70	612	25.2	286.5	1.66	598	25.4	279.4	1.62
170	178	609	26.0	25.2	20.5	22.1	23.0	3.34	6.8	12.9	0.34	9.16	32.2	81	4.05	0.183	0.176	6.3	0.40	3083	2289	160	56	C	M	0.4949	301.4	1.70	608	25.2	294.7	1.66	594	25.5	287.3	1.62	581	25.8	280.4	1.58
175	183	591	26.4	25.5	20.6	22.3	23.2	3.38	6.9	12.9	0.34	9.40	32.2	80	4.11	0.185	0.177	6.3	0.40	3080	2289	159	56	C	M	0.5110	302.0	1.65	590	25.6	295.4	1.62	578	25.9	288.1	1.58	566	26.2	281.6	1.54
180	188	574	26.7	25.9	20.8	22.4	23.4	3.42	6.9	12.9	0.35	9.63	32.2	79	4.17	0.186	0.179	6.2	0.40	3079	2289	157	55	C	M	0.5270	302.5	1.61	573	26.0	295.9	1.58	562	26.3	288.7	1.54	552	26.5	282.5	1.51

Table A58. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 14 m Initial Density = 5000 stems/ha																																								
5	13	4941	1.5	1.4	2.2	2.6	2.8	0.70	1.6	0.5	0.77	0.39	0.9	171	1.42	0.538	0.516	0.7	0.01	691	2685	41	19	A	M	0.0002	0.9	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	4803	2.9	2.7	3.4	4.1	4.3	0.81	2.1	1.1	0.66	0.52	3.2	130	1.44	0.351	0.334	1.9	0.04	988	2685	76	25	A	M	0.0012	5.6	0.32	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	4598	4.2	3.9	4.5	5.6	5.9	0.92	2.5	1.8	0.57	0.69	6.4	122	1.47	0.265	0.251	3.1	0.07	1319	2685	111	32	B	M	0.0033	15.4	0.68	22	8.4	0.3	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	4345	5.4	5.1	5.7	6.9	7.3	1.04	2.8	2.7	0.50	0.88	9.9	118	1.52	0.219	0.207	4.3	0.11	1652	2685	141	38	B	M	0.0069	30.1	1.09	398	8.5	5.8	0.21	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	4063	6.5	6.1	6.8	8.2	8.7	1.15	3.1	3.5	0.46	1.09	13.4	116	1.57	0.191	0.180	5.3	0.15	1965	2685	167	44	B	M	0.0120	48.6	1.49	1117	8.8	21.1	0.65	12	12.8	0.6	0.02	0	0.0	0.0	0.00
30	38	3769	7.5	7.1	7.8	9.4	10.0	1.26	3.3	4.3	0.42	1.31	16.7	114	1.63	0.174	0.163	6.1	0.20	2245	2685	187	50	B	M	0.0185	69.7	1.85	1729	9.3	42.8	1.14	85	13.0	4.9	0.13	11	14.6	0.7	0.02
35	43	3476	8.5	8.0	8.8	10.4	11.1	1.37	3.4	5.1	0.40	1.55	19.7	113	1.70	0.162	0.153	6.8	0.23	2487	2685	203	54	C	M	0.0264	91.9	2.16	2100	9.8	67.2	1.58	253	13.3	16.8	0.39	57	14.8	4.2	0.10
40	48	3194	9.4	9.0	9.7	11.4	12.2	1.48	3.6	5.8	0.38	1.80	22.4	111	1.77	0.155	0.145	7.3	0.27	2689	2685	214	58	C	M	0.0358	114.3	2.40	2268	10.4	92.0	1.93	487	13.6	36.5	0.77	161	15.1	13.3	0.28
45	53	2929	10.3	9.8	10.5	12.3	13.1	1.58	3.8	6.5	0.36	2.06	24.6	110	1.85	0.150	0.141	7.7	0.30	2854	2685	221	60	C	M	0.0464	136.0	2.59	2301	11.0	115.9	2.20	729	14.0	61.4	1.17	313	15.4	28.9	0.55
50	58	2685	11.2	10.7	11.3	13.2	14.0	1.68	3.9	7.1	0.35	2.33	26.5	108	1.93	0.147	0.138	7.9	0.32	2986	2685	226	63	C	M	0.0583	156.6	2.72	2253	11.7	138.4	2.40	936	14.4	88.3	1.53	485	15.7	49.8	0.86
55	63	2462	12.1	11.5	12.0	13.9	14.8	1.77	4.1	7.7	0.34	2.60	28.1	107	2.02	0.145	0.136	8.1	0.34	3088	2685	228	64	C	M	0.0713	175.5	2.80	2161	12.3	159.1	2.54	1090	14.8	114.7	1.83	647	16.0	73.4	1.17
60	68	2261	12.9	12.3	12.6	14.6	15.5	1.86	4.2	8.2	0.34	2.88	29.4	106	2.10	0.144	0.135	8.2	0.36	3167	2685	229	65	C	M	0.0853	192.9	2.85	2048	13.0	177.8	2.63	1192	15.2	139.3	2.06	783	16.4	97.8	1.45
65	73	2080	13.7	13.1	13.3	15.3	16.2	1.95	4.4	8.7	0.33	3.16	30.4	104	2.19	0.144	0.135	8.2	0.37	3225	2685	228	66	C	M	0.1002	208.5	2.87	1927	13.6	194.5	2.68	1248	15.7	161.4	2.22	887	16.8	121.6	1.68
70	78	1918	14.4	13.8	13.8	15.8	16.8	2.04	4.5	9.1	0.33	3.44	31.3	103	2.28	0.144	0.136	8.2	0.38	3266	2685	226	66	C	M	0.1160	222.4	2.87	1807	14.3	209.4	2.70	1269	16.1	180.8	2.33	957	17.2	143.5	1.85
75	83	1773	15.1	14.5	14.4	16.4	17.4	2.12	4.7	9.5	0.32	3.73	31.9	102	2.37	0.145	0.137	8.2	0.39	3294	2685	223	66	C	M	0.1324	234.7	2.84	1691	14.9	222.5	2.69	1265	16.6	197.8	2.39	1000	17.6	163.5	1.98
80	88	1644	15.8	15.2	14.9	16.9	17.9	2.20	4.8	9.9	0.32	4.02	32.4	100	2.47	0.146	0.138	8.1	0.40	3312	2685	220	66	C	M	0.1494	245.6	2.80	1582	15.6	234.1	2.67	1244	17.1	212.5	2.43	1021	18.0	181.2	2.07
85	93	1529	16.5	15.9	15.4	17.4	18.4	2.28	4.9	10.2	0.32	4.30	32.8	99	2.56	0.147	0.139	8.1	0.40	3321	2685	217	66	C	M	0.1668	255.1	2.76	1482	16.2	244.3	2.64	1211	17.6	225.2	2.43	1025	18.4	196.8	2.13
90	98	1426	17.2	16.5	15.8	17.8	18.8	2.35	5.1	10.5	0.32	4.59	33.1	98	2.65	0.149	0.141	8.0	0.41	3324	2685	214	65	C	M	0.1848	263.5	2.70	1390	16.8	253.1	2.59	1172	18.1	236.1	2.42	1016	18.8	210.4	2.16
95	103	1333	17.8	17.2	16.2	18.2	19.2	2.43	5.2	10.8	0.32	4.88	33.3	97	2.74	0.150	0.142	7.9	0.41	3322	2685	210	65	C	M	0.2030	270.6	2.64	1305	17.4	260.7	2.54	1129	18.5	245.4	2.39	998	19.3	222.0	2.16
100	108	1250	18.5	17.8	16.6	18.6	19.6	2.50	5.3	11.1	0.32	5.16	33.5	96	2.83	0.152	0.144	7.8	0.41	3317	2685	206	64	C	M	0.2214	276.8	2.57	1228	18.0	267.2	2.48	1084	19.0	253.3	2.35	974	19.7	232.1	2.16
105	113	1176	19.1	18.4	17.0	18.9	20.0	2.57	5.5	11.3	0.32	5.44	33.6	95	2.92	0.154	0.146	7.7	0.41	3308	2685	203	64	C	M	0.2401	282.3	2.51	1159	18.5	273.1	2.43	1040	19.5	260.2	2.31	948	20.1	241.0	2.14
110	118	1109	19.6	18.9	17.3	19.3	20.3	2.63	5.6	11.5	0.32	5.72	33.6	93	3.00	0.156	0.148	7.6	0.41	3298	2685	199	63	C	M	0.2587	286.9	2.44	1095	19.1	278.0	2.36	997	20.0	266.1	2.26	919	20.6	248.5	2.11
115	123	1048	20.2	19.5	17.6	19.6	20.6	2.69	5.7	11.7	0.32	6.00	33.6	92	3.09	0.158	0.150	7.5	0.41	3287	2685	196	63	C	M	0.2774	290.7	2.37	1037	19.6	282.1	2.30	955	20.4	270.9	2.21	889	21.0	254.9	2.08
120	128	994	20.8	20.0	17.9	19.9	20.9	2.76	5.8	11.9	0.32	6.27	33.6	91	3.17	0.160	0.152	7.4	0.41	3274	2685	192	62	C	M	0.2961	294.3	2.31	985	20.2	285.9	2.24	916	20.9	275.3	2.16	859	21.4	260.5	2.04
125	133	944	21.3	20.6	18.2	20.2	21.2	2.82	5.9	12.0	0.32	6.55	33.6	90	3.25	0.161	0.154	7.3	0.41	3262	2685	189	62	C	M	0.3146	297.0	2.24	937	20.7	288.8	2.18	879	21.4	278.8	2.10	830	21.8	265.2	2.00
130	138	899	21.8	21.1	18.5	20.4	21.4	2.87	6.0	12.2	0.33	6.81	33.6	89	3.34	0.163	0.156	7.2	0.41	3249	2685	186	61	C	M	0.3330	299.4	2.18	893	21.2	291.4	2.12	844	21.8	281.9	2.05	801	22.3	269.2	1.96
135	143	858	22.3	21.6	18.7	20.7	21.7	2.93	6.1	12.3	0.33	7.08	33.5	88	3.41	0.165	0.157	7.1	0.41	3237	2685	183	61	C	M	0.3513	301.4	2.11	853	21.6	293.6	2.06	811	22.2	284.4	1.99	774	22.7	272.7	1.91
140	148	821	22.8	22.0	19.0	20.9	21.9	2.98	6.2	12.4	0.33	7.34	33.5	87	3.49	0.167	0.159	7.0	0.41	3225	2685	181	60	C	M	0.3694	303.3	2.05	817	22.1	295.6	2.00	780	22.7	286.7	1.94	749	23.1	275.9	1.87
145	153	787	23.3	22.5	19.2	21.1	22.1	3.04	6.3	12.5	0.33	7.60	33.4	86	3.56	0.169	0.161	6.9	0.41	3214	2685	178	60	C	M	0.3873	304.8	2.00	783	22.6	297.2	1.95	752	23.1	288.6	1.89	724	23.5	278.5	1.83
150	158	755	23.7	22.9	19.4	21.3	22.3	3.09	6.4	12.6	0.33	7.85	33.3	86	3.64	0.171	0.163	6.8	0.41	3203	2685	175	59	C	M	0.4048	305.6	1.94	752	23.0	298.3	1.89	725	23.5	289.9	1.84	700	23.9	280.4	1.78
155	163	727	24.2	23.4	19.6	21.5	22.5	3.14	6.4	12.7	0.33	8.11	33.3	85	3.71	0.172	0.165	6.8	0.41	3193	2685	173	59	C	M	0.4221	306.9	1.89	724	23.4	299.6	1.84	700	23.9	291.4	1.79	679	24.2	282.5	1.74
160	168	700	24.6	23.8	19.8	21.7	22.7	3.19	6.5	12.7	0.33	8.35	33.2	84	3.78	0.174	0.166	6.7	0.41	3184	2685	171	58	C	M	0.4391	307.4	1.83	698	23.9	300.2	1.79	677	24.3	292.2	1.74	658	24.6	283.8	1.69
165	173	676	25.0	24.2	20.0	21.9	22.9	3.23	6.6	12.8	0.34	8.60	33.2	83	3.85	0.176	0.168	6.6	0.41	3176	2685	169	58	C	M	0.4558	308.1	1.79	674	24.3	301.1	1.74	656	24.7	293.2	1.70	638	25.0	285.2	1.65
170	178	653	25.4	24.6	20.2	22.0	23.0	3.28	6.7	12.8	0.34	8.84	33.1	82	3.91	0.178	0.170	6.6	0.41	3168	2685	167	58	C	M	0.4721	308.3	1.74	651	24.7	301.3	1.70	635	25.0	293.6	1.65	620	25.3	286.1	1.61
175	183	633	25.8	25.0	20.4	22.2	23.2	3.32	6.7	12.9	0.34	9.07	33.1	81	3.97	0.179	0.171	6.5	0.41	3162	2685	165	57	C	M	0.4883	309.1	1.69	632	25.0	302.1	1.65	617	25.4	294.5	1.61	603	25.7	287.4	1.57
180	188	613	26.2	25.4	20.6	22.4	23.4	3.36	6.8	12.9	0.34	9.31	33.0	80	4.04	0.181	0.173	6.5	0.41	3156	2685	163	57	C	M	0.5039	308.9	1.65	612	25.4	302.1	1.61	599	25.7	294.6	1.57	586	26.0	287.8	1.53
SI = 14 m Initial Density = 6000 stems/ha																																								
5	13	5922	1.4	1.3	2.1	2.6	2.8	0.70	1.5	0.5	0.76	0.38	0.9	179	1.30	0.492	0.471	0.8	0.01	813	3059	47	23	A	M	0.0002	1.0	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	5740	2.8	2.6	3.3	4.1	4.3	0.80	2.0	1.1	0.64	0.50	3.5	134	1.32	0.322	0.305	2.1	0.04	1140	3059	87	29	A	M	0.0010	6.0	0.34	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	5472	4.0	3.8	4.5	5.5	5.9	0.91	2.4	1.9	0.55	0.66	7.0	125	1.35	0.244	0.230	3.5	0.08	1499	3059	125	36	B	M	0.0030	16.4	0.73	13	8.3	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	5143	5.2	4.8	5.6	6.9	7.3	1.02	2.7	2.7	0.49	0.84	10.7	121	1.39	0.202	0.190	4.7	0.12	1856	3059	158	43	B	M	0.0062	32.0	1.16	342	8.4	4.7	0.17	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	4779	6.2	5.9	6.7	8.2	8.7	1.13	2.9	3.5	0.44	1.03	14.5	118	1.45	0.177	0.166	5.8	0.17	2187	3059	186	49	B	M	0.0108	51.7	1.59	1104	8.7	19.7	0.60	7	12.7	0.3	0.01	0	0.0	0.0	0.00
30	38	4404	7.2	6.8	7.7	9.3	10.0	1.23	3.1	4.3	0.41	1.25	18.0	116	1.51	0.161	0.151	6.7	0.21	2478	3059	208	55	C	M	0.0168	73.8	1.96	1819	9.1	42.2	1.12	60	12.9	3.4	0.09	6	14.5	0.4	0.01
35	43	4035	8.2	7.7	8.7	10.4	11.1	1.34	3.3	5.1	0.39	1.47	21.2	115	1.57	0.151	0.142	7.4	0.25	2725	3059	224	59	C	M	0.0241	97.1	2.28	2277	9.6	68.0	1.60	210	13.2	13.6	0.32	39	14.8	2.8	0.07
40	48	3683	9.1	8.6	9.5	11.4	12.2	1.44	3.5	5.8	0.37	1.71	23.9	113	1.65	0.145	0.135	7.9	0.29	2928	3059	235	63	C	M	0.0327	120.4	2.53	2497	10.2	94.2	1.98	442	13.5	32.2	0.68	127	15.0	10.3	0.22
45	53	3357	10.0	9.5	10.4	12.3	13.1	1.54	3.6	6.5	0.35	1.96	26.3	111	1.73	0.140	0.131	8.3	0.32	3090	3059	242	66	C	M	0.0426	142.9	2.72	2552	10.8	119.5	2.27	700	13.8	57.1	1.09	271	15.2	24.4	0.46
50	58	3059	10.8	10.3	11.1	13.1	14.0	1.63	3.8	7.1	0.34	2.21	28.2	110	1.81	0.138	0.129	8.6	0.34	3216	3059	246	68	C	M	0.0536	164.1	2.85	2507	11.4	143.1	2.48	934	14.2	85.0	1.48	447	15.5	44.4	0.77
55	63	2789	11.7	11.1	11.8	13.9	14.8	1.73	3.9	7.6	0.33	2.47	29.8	108	1.89	0.136	0.128	8.7	0.36	3311	3059	247	69	C	M	0.0658	183.5	2.93	2406	12.0	164.6	2.63	1115	14.6	112.7	1.80	622	15.8	68.2	1.09
60	68	2548	12.5	11.9	12.5	14.6	15.5	1.82	4.1	8.1	0.33	2.74	31.1	107	1.98	0.136	0.128	8.8	0.38	3381	3059	247	70	C	M	0.0789	201.1	2.98	2278	12.7	184.1	2.72	1240	15.0	138.9	2.05	776	16.2	93.4	1.38
65	73	2333	13.2	12.7	13.1	15.2	16.2	1.90	4.2	8.6	0.32	3.01	32.1	106	2.07	0.136	0.128	8.8	0.39	3430	3059	245	70	D	M	0.0930	217.0	2.99	2140	13.3	201.3	2.77	1314	15.4	162.5	2.24	897	16.5	118.2	1.63
70	78	2142	14.0	13.4	13.7	15.8	16.8	1.99	4.4	9.1	0.32	3.28	32.9	104	2.16	0.137	0.129	8.8	0.40	3462	3059	242	70	D	M	0.1078	231.0	2.98	2002	13.9	216.6	2.79	1347	15.8	183.3	2.36	984	16.9	141.5	1.82
75	83	1973	14.7	14.1	14.2	16.3	17.4	2.07	4.5	9.5	0.32	3.56	33.5	103	2.25	0.138	0.130	8.7	0.41	3481	3059	239	70	D	M	0.1234	243.5	2.95	1870	14.6	230.1	2.79	1351	16.3	201.4	2.44	1040	17.3	162.8	1.97
80	88	1822	15.4	14.8	14.7	16.8	17.9	2.15	4.7	9.8	0.32	3.84	34.0	102	2.34	0.139	0.131	8.7	0.42	3490	3059	235	70	C	M	0.1396	254.4	2.90	1745	15.2	241.8	2.76	1332	16.8	216.9	2.48	1069	17.7	181.5	2.07
85	93	1688	16.1	15.4	15.2	17.3	18.4	2.23	4.8	10.2	0.32	4.11	34.3	100	2.43	0.141	0.132	8.6	0.42	3491	3059	231	69	C	M	0.1563	263.9	2.85	1630	15.8	252.0	2.72	1300	17.2	230.2	2.49	1079	18.1	198.1	2.14
90	98	1569	16.7	16.1	15.6	17.7	18.8	2.30	4.9	10.5	0.32	4.39	34.5	99	2.52	0.142	0.134	8.4	0.42	3486	3059	227	69	C	M	0.1734	272.1	2.79	1524	16.4	260.9	2.67	1260	17.7	241.7	2.48	1074	18.5	212.5	2.18
95	103	1463	17.4	16.7	16.0	18.1	19.2	2.38	5.0	10.8	0.32	4.67	34.7	98	2.61	0.144	0.136	8.3	0.43	3476	3059	222	68	C	M	0.1909	279.3	2.72	1428	17.0	268.6	2.62	1214	18.2	251.3	2.45	1059	19.0	225.0	2.19
100	108	1368	18.0	17.3	16.4	18.5	19.6	2.45	5.2	11.0	0.32	4.95	34.8	97	2.70	0.146	0.138	8.2	0.43	3463	3059	218	68	C	M	0.2086	285.4	2.65	1341	17.6	275.1	2.56	1167	18.7	259.6	2.41	1036	19.4	235.7	2.19
105	113	1283	18.6	17.9	16.7	18.9	20.0	2.51	5.3	11.3	0.32	5.22	34.8	96	2.79	0.148	0.140	8.1	0.43	3448	3059	214	67	C	M	0.2265	290.6	2.58	1262	18.1	280.8	2.49	1119	19.1	266.6	2.37	1009	19.8	245.0	2.18
110	118	1207	19.2	18.5	17.1	19.2	20.3	2.58	5.4	11.5	0.32	5.50	34.9	95	2.88	0.150	0.142	8.0	0.43	3431	3059	210	66	C	M	0.2445	295.1	2.51	1190	18.7	285.7	2.43	1072	19.6	272.6	2.32	979	20.2	252.9	2.15
115	123	1138	19.7	19.0	17.4	19.5	20.6	2.64	5.5	11.7	0.32	5.77	34.8	93	2.96	0.152	0.144	7.8	0.43	3413	3059	206	66	C	M	0.2626	298.8	2.44	1124	19.2	289.7	2.36	1026	20.1	277.5	2.26	947	20.6	259.5	2.12
120	128	1076	20.3	19.6	17.7	19.8	20.9	2.70	5.6	11.8	0.32	6.04	34.8	92	3.05	0.154	0.146	7.7	0.43	3395	3059	202	65	C	M	0.2807	302.0	2.37	1065	19.7	293.1	2.30	982	20.5	281.6	2.21	915	21.1	265.2	2.08
125	133	1020	20.8	20.1	18.0	20.1	21.2	2.76	5.7	12.0	0.32	6.30	34.7	91	3.13	0.156	0.148	7.6	0.43	3377	3059	198	64	C	M	0.2987	304.7	2.30	1011	20.2	296.0	2.23	941	21.0	285.2	2.15	884	21.5	270.1	2.04
130	138	970	21.3	20.6	18.3	20.3	21.4	2.82	5.8	12.1	0.32	6.57	34.6	90	3.21	0.158	0.150	7.5	0.43	3359	3059	195	64	C	M	0.3167	307.2	2.23	962	20.7	298.7	2.17	903	21.4	288.4	2.10	854	21.9	274.5	2.00
135	143	923	21.8	21.1	18.5	20.6	21.7	2.88	5.9	12.3	0.32	6.83	34.5	89	3.29	0.160	0.152	7.4	0.43	3341	3059	191	63	C	M	0.3345	308.7	2.16	917	21.2	300.5	2.11	866	21.8	290.6	2.04	823	22.3	277.7	1.95
140	148	881	22.3	21.6	18.8	20.8	21.9	2.93	6.0	12.4	0.32	7.08	34.4	88	3.37	0.162	0.154	7.3	0.42	3325	3059	188	62	C	M	0.3521	310.2	2.10	876	21.6	302.1	2.05	833	22.2	292.7	1.98	795	22.7	280.7	1.90
145	153	843	22.8	22.0	19.0	21.0	22.1	2.98	6.1	12.5	0.33	7.34	34.4	87	3.44	0.164	0.156	7.2	0.42	3309	3059	185	62	C	M	0.3695	311.5	2.04	839	22.1	303.6	1.99	801	22.7	294.5	1.93	768	23.1	283.3	1.86
150	158	808	23.2	22.5	19.2	21.2	22.3	3.03	6.2	12.6	0.33	7.59	34.3	86	3.52	0.166	0.158	7.1	0.42	3293	3059	183	61	C	M	0.3868	312.5	1.98	804	22.6	304.8	1.93	772	23.1	295.9	1.88	743	23.5	285.5	1.81
155	163	776	23.7	22.9	19.4	21.4	22.5	3.08	6.3	12.6	0.33	7.84	34.2	86	3.59	0.168	0.159	7.0	0.42	3279	3059	180	61	C	M	0.4037	313.3	1.93	773	23.0	305.7	1.88	745	23.5	297.1	1.83	719	23.8	287.3	1.77
160	168	746	24.1	23.3	19.6	21.6	22.7	3.13	6.4	12.7	0.33	8.08	34.1	85	3.66	0.169	0.161	6.9	0.42	3266	3059	177	60	C	M	0.4204	313.6	1.87	743	23.4	306.1	1.83	718	23.9	297.7	1.78	696	24.2	288.6	1.72
165	173	719	24.5	23.7	19.8	21.8	22.9	3.18	6.5	12.8	0.33	8.32	34.0	84	3.73	0.171	0.163	6.9	0.42	3254	3059	175	60	C	M	0.4367	314.0	1.82	717	23.8	306.7	1.78	695	24.2	298.5	1.73	675	24.6	289.9	1.68
170	178	694	24.9	24.1	20.0	22.0	23.0	3.22	6.5	12.8	0.33	8.56	33.9	83	3.80	0.173	0.165	6.8	0.42	3243	3059	173	59	C	M	0.4529	314.3	1.77	692	24.2	307.1	1.73	673	24.6	299.0	1.68	655	24.9	290.9	1.64
175	183	671	25.3	24.5	20.2	22.1	23.2	3.27	6.6	12.8	0.34	8.79	33.8	82	3.86	0.175	0.166	6.7	0.42	3233	3059	171	59	C	M	0.4687	314.5	1.72	669	24.6	307.3	1.68	652	25.0	299.4	1.64	636	25.3	291.7	1.60
180	188	650	25.7	24.9	20.3	22.3	23.4	3.31	6.7	12.9	0.34	9.02	33.8	81	3.92	0.176	0.168	6.7	0.42	3224	3059	169	59	C	M	0.4842	314.7	1.68	649	25.0	307.7	1.64	633	25.3	299.9	1.60	619	25.6	292.5	1.56

Table A59. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 14 m Initial Density = 7000 stems/ha																																								
5	13	6902	1.3	1.3	2.1	2.6	2.8	0.70	1.5	0.5	0.75	0.38	1.0	185	1.20	0.456	0.436	0.8	0.01	934	3416	53	26	A	M	0.0001	1.0	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	6673	2.7	2.5	3.3	4.1	4.3	0.79	2.0	1.1	0.63	0.49	3.8	138	1.22	0.299	0.283	2.3	0.04	1288	3416	97	33	B	M	0.0009	6.3	0.36	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	6337	3.9	3.6	4.4	5.5	5.9	0.89	2.3	1.9	0.54	0.64	7.5	127	1.26	0.227	0.214	3.8	0.08	1672	3416	138	40	B	M	0.0027	17.3	0.77	8	8.2	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	5928	5.0	4.7	5.6	6.9	7.3	1.00	2.6	2.7	0.48	0.81	11.5	123	1.30	0.189	0.177	5.2	0.13	2049	3416	175	48	B	M	0.0057	33.7	1.22	290	8.3	3.9	0.14	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	5480	6.0	5.6	6.6	8.2	8.7	1.10	2.8	3.5	0.43	0.99	15.5	120	1.35	0.166	0.155	6.3	0.18	2394	3416	204	54	C	M	0.0099	54.3	1.67	1071	8.6	18.3	0.56	4	12.6	0.2	0.01	0	0.0	0.0	0.00
30	38	5022	7.0	6.6	7.6	9.3	10.0	1.21	3.0	4.3	0.40	1.19	19.2	118	1.41	0.151	0.142	7.3	0.23	2694	3416	227	60	C	M	0.0154	77.4	2.06	1876	9.0	41.3	1.10	43	12.8	2.4	0.06	4	14.3	0.2	0.01
35	43	4575	7.9	7.5	8.5	10.4	11.1	1.31	3.2	5.1	0.38	1.41	22.5	116	1.48	0.142	0.133	8.0	0.27	2944	3416	243	64	C	M	0.0222	101.6	2.39	2419	9.4	68.1	1.60	172	13.1	10.9	0.26	27	14.7	1.9	0.04
40	48	4154	8.8	8.4	9.4	11.4	12.2	1.41	3.3	5.8	0.36	1.63	25.3	115	1.55	0.137	0.128	8.5	0.31	3145	3416	254	68	C	M	0.0302	125.6	2.64	2694	10.0	95.6	2.01	396	13.4	28.2	0.59	100	14.9	7.9	0.17
45	53	3767	9.7	9.2	10.2	12.3	13.1	1.50	3.5	6.4	0.35	1.87	27.7	113	1.63	0.133	0.124	8.9	0.34	3303	3416	261	70	D	M	0.0395	148.8	2.83	2776	10.5	122.1	2.32	664	13.7	52.8	1.00	233	15.1	20.5	0.39
50	58	3416	10.5	10.0	11.0	13.1	14.0	1.60	3.6	7.0	0.34	2.11	29.7	111	1.71	0.131	0.122	9.2	0.36	3423	3416	264	72	D	M	0.0499	170.4	2.96	2737	11.1	146.7	2.55	918	14.0	81.1	1.41	408	15.4	39.5	0.69
55	63	3101	11.3	10.8	11.7	13.8	14.8	1.69	3.8	7.6	0.33	2.37	31.3	110	1.80	0.130	0.121	9.3	0.38	3510	3416	265	73	D	M	0.0613	190.2	3.04	2630	11.7	169.1	2.70	1125	14.4	110.1	1.76	592	15.7	63.0	1.01
60	68	2821	12.1	11.6	12.3	14.5	15.5	1.78	3.9	8.1	0.32	2.62	32.5	108	1.88	0.130	0.121	9.3	0.40	3572	3416	263	74	D	M	0.0738	208.1	3.08	2490	12.4	189.1	2.80	1272	14.8	137.6	2.04	760	16.0	88.6	1.31
65	73	2574	12.9	12.3	12.9	15.2	16.2	1.87	4.1	8.6	0.32	2.88	33.5	107	1.97	0.130	0.122	9.3	0.41	3613	3416	261	74	D	M	0.0871	224.2	3.09	2337	13.0	207.0	2.85	1364	15.2	162.5	2.24	897	16.4	114.3	1.57
70	78	2354	13.6	13.0	13.5	15.7	16.8	1.95	4.2	9.0	0.32	3.15	34.3	105	2.06	0.131	0.123	9.3	0.42	3637	3416	257	74	D	M	0.1013	238.4	3.07	2183	13.6	222.5	2.87	1410	15.6	184.5	2.38	998	16.7	138.6	1.79
75	83	2161	14.3	13.7	14.0	16.3	17.4	2.03	4.4	9.4	0.31	3.42	34.9	104	2.15	0.132	0.124	9.2	0.43	3648	3416	253	74	D	M	0.1161	250.9	3.04	2035	14.2	236.3	2.86	1422	16.1	203.6	2.47	1067	17.1	161.0	1.95
80	88	1990	15.0	14.4	14.5	16.8	17.9	2.11	4.5	9.8	0.31	3.69	35.3	103	2.24	0.134	0.125	9.1	0.44	3649	3416	248	73	D	M	0.1316	261.8	2.99	1896	14.8	248.2	2.83	1408	16.5	220.0	2.51	1106	17.5	180.9	2.07
85	93	1838	15.7	15.1	15.0	17.3	18.4	2.19	4.7	10.1	0.31	3.96	35.6	102	2.33	0.135	0.127	9.0	0.44	3642	3416	243	73	D	M	0.1476	271.2	2.93	1767	15.4	258.4	2.79	1378	17.0	233.9	2.53	1123	17.9	198.3	2.14
90	98	1704	16.4	15.7	15.4	17.7	18.8	2.26	4.8	10.4	0.31	4.23	35.8	100	2.42	0.137	0.129	8.8	0.44	3629	3416	238	72	D	M	0.1640	279.4	2.86	1650	16.0	267.4	2.74	1337	17.4	245.8	2.52	1123	18.3	213.6	2.19
95	103	1585	17.0	16.3	15.8	18.1	19.2	2.33	4.9	10.7	0.31	4.50	35.9	99	2.51	0.139	0.131	8.7	0.44	3613	3416	234	71	D	M	0.1808	286.5	2.79	1543	16.6	275.1	2.68	1290	17.9	255.9	2.49	1110	18.7	226.8	2.21
100	108	1479	17.6	16.9	16.2	18.5	19.6	2.40	5.0	11.0	0.31	4.77	36.0	98	2.60	0.141	0.133	8.6	0.44	3593	3416	229	71	D	M	0.1978	292.6	2.72	1446	17.2	281.7	2.62	1241	18.3	264.6	2.46	1089	19.1	238.1	2.21
105	113	1384	18.2	17.5	16.6	18.8	20.0	2.47	5.2	11.2	0.31	5.04	36.0	97	2.69	0.143	0.135	8.4	0.44	3572	3416	224	70	C	M	0.2151	297.7	2.64	1358	17.7	287.3	2.55	1190	18.8	271.7	2.41	1062	19.5	247.8	2.20
110	118	1299	18.8	18.1	16.9	19.1	20.3	2.53	5.3	11.4	0.31	5.30	35.9	96	2.77	0.145	0.137	8.3	0.44	3549	3416	219	69	C	M	0.2326	302.1	2.57	1278	18.3	292.1	2.48	1139	19.3	277.7	2.36	1031	19.9	256.0	2.18
115	123	1222	19.3	18.6	17.2	19.5	20.6	2.60	5.4	11.6	0.31	5.57	35.8	94	2.86	0.147	0.139	8.2	0.44	3525	3416	215	68	C	M	0.2501	305.6	2.49	1205	18.8	295.9	2.41	1090	19.7	282.7	2.31	998	20.3	262.9	2.14
120	128	1154	19.9	19.2	17.5	19.7	20.9	2.66	5.5	11.8	0.31	5.83	35.8	93	2.94	0.149	0.141	8.0	0.44	3502	3416	211	67	C	M	0.2676	308.8	2.42	1140	19.3	299.5	2.35	1044	20.2	287.1	2.25	966	20.7	269.0	2.11
125	133	1092	20.4	19.7	17.8	20.0	21.2	2.72	5.6	11.9	0.32	6.09	35.7	92	3.03	0.151	0.143	7.9	0.44	3479	3416	206	67	C	M	0.2852	311.4	2.35	1081	19.8	302.3	2.28	1000	20.6	290.7	2.19	933	21.1	274.1	2.07
130	138	1036	20.9	20.2	18.1	20.3	21.4	2.77	5.7	12.1	0.32	6.35	35.6	91	3.11	0.153	0.145	7.8	0.44	3456	3416	203	66	C	M	0.3026	313.5	2.28	1027	20.3	304.7	2.21	958	21.0	293.7	2.13	900	21.6	278.4	2.02
135	143	985	21.4	20.7	18.3	20.5	21.7	2.83	5.8	12.2	0.32	6.61	35.4	90	3.19	0.155	0.147	7.7	0.44	3434	3416	199	65	C	M	0.3199	315.1	2.21	977	20.8	306.6	2.15	919	21.5	296.1	2.08	869	21.9	282.0	1.98
140	148	938	21.9	21.1	18.6	20.7	21.9	2.88	5.9	12.3	0.32	6.86	35.3	89	3.27	0.157	0.149	7.5	0.44	3413	3416	195	64	C	M	0.3371	316.2	2.14	932	21.2	307.9	2.09	881	21.9	297.8	2.02	838	22.3	284.8	1.93
145	153	896	22.4	21.6	18.8	21.0	22.1	2.94	6.0	12.4	0.32	7.11	35.2	88	3.34	0.159	0.151	7.4	0.43	3393	3416	192	64	C	M	0.3542	317.4	2.08	891	21.7	309.2	2.03	847	22.3	299.5	1.96	809	22.7	287.4	1.88
150	158	858	22.8	22.1	19.0	21.2	22.3	2.99	6.1	12.5	0.32	7.36	35.1	87	3.41	0.161	0.153	7.3	0.43	3374	3416	189	63	C	M	0.3711	318.4	2.02	854	22.1	310.4	1.97	816	22.7	301.1	1.91	783	23.1	289.7	1.84
155	163	822	23.3	22.5	19.2	21.4	22.5	3.04	6.2	12.6	0.33	7.60	34.9	86	3.49	0.163	0.155	7.2	0.43	3357	3416	186	62	C	M	0.3877	318.7	1.96	818	22.6	310.8	1.91	785	23.1	301.8	1.86	756	23.5	291.2	1.79
160	168	790	23.7	22.9	19.4	21.5	22.7	3.09	6.3	12.7	0.33	7.84	34.8	85	3.56	0.165	0.157	7.2	0.43	3340	3416	183	62	C	M	0.4041	319.2	1.90	787	23.0	311.5	1.86	758	23.5	302.7	1.81	732	23.8	292.8	1.75
165	173	760	24.1	23.3	19.6	21.7	22.9	3.13	6.3	12.7	0.33	8.08	34.7	85	3.63	0.167	0.159	7.1	0.43	3324	3416	181	61	C	M	0.4203	319.4	1.85	757	23.4	311.8	1.81	732	23.8	303.2	1.76	709	24.2	293.9	1.70
170	178	733	24.5	23.7	19.8	21.9	23.0	3.18	6.4	12.8	0.33	8.32	34.6	84	3.69	0.169	0.160	7.0	0.43	3310	3416	178	61	C	M	0.4360	319.6	1.80	731	23.8	312.2	1.76	708	24.2	303.8	1.71	688	24.6	295.0	1.66
175	183	707	24.9	24.1	19.9	22.0	23.2	3.22	6.5	12.8	0.33	8.55	34.5	83	3.76	0.171	0.162	6.9	0.42	3297	3416	176	60	C	M	0.4516	319.3	1.75	705	24.2	311.9	1.71	685	24.6	303.7	1.66	667	24.9	295.4	1.62
180	188	684	25.3	24.5	20.1	22.2	23.4	3.27	6.6	12.8	0.33	8.78	34.4	82	3.82	0.172	0.164	6.8	0.42	3285	3416	174	60	C	M	0.4670	319.4	1.70	682	24.6	312.1	1.66	664	25.0	304.0	1.62	648	25.2	296.2	1.58
SI = 14 m Initial Density = 7500 stems/ha																																								
5	13	7392	1.3	1.2	2.1	2.6	2.8	0.69	1.5	0.5	0.74	0.38	1.0	189	1.16	0.441	0.422	0.9	0.01	994	3589	56	28	A	M	0.0001	1.0	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	7138	2.6	2.5	3.3	4.1	4.3	0.78	1.9	1.1	0.63	0.49	3.9	139	1.18	0.289	0.274	2.4	0.04	1360	3589	101	35	B	M	0.0009	6.5	0.37	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	6768	3.8	3.6	4.4	5.5	5.9	0.88	2.3	1.9	0.54	0.63	7.7	129	1.22	0.220	0.207	3.9	0.09	1756	3589	145	42	B	M	0.0026	17.7	0.78	6	8.2	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	6317	4.9	4.6	5.5	6.9	7.3	0.99	2.5	2.7	0.47	0.79	11.8	124	1.26	0.183	0.171	5.4	0.14	2142	3589	182	50	B	M	0.0055	34.5	1.25	266	8.3	3.5	0.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	5826	5.9	5.6	6.6	8.1	8.7	1.09	2.7	3.5	0.43	0.97	15.9	121	1.31	0.161	0.150	6.6	0.19	2493	3589	213	57	C	M	0.0095	55.5	1.70	1050	8.5	17.6	0.54	3	12.5	0.1	0.00	0	0.0	0.0	0.00
30	38	5326	6.9	6.5	7.6	9.3	10.0	1.19	2.9	4.3	0.40	1.17	19.7	119	1.37	0.147	0.138	7.5	0.24	2796	3589	236	62	C	M	0.0148	79.0	2.10	1894	8.9	40.7	1.08	36	12.8	2.0	0.05	3	14.3	0.2	0.01
35	43	4840	7.8	7.4	8.5	10.4	11.1	1.30	3.1	5.1	0.37	1.38	23.1	117	1.44	0.139	0.129	8.3	0.28	3047	3589	252	67	C	M	0.0214	103.6	2.43	2479	9.4	68.0	1.60	156	13.0	9.8	0.23	22	14.7	1.6	0.04
40	48	4384	8.7	8.2	9.4	11.4	12.2	1.39	3.3	5.8	0.36	1.60	26.0	115	1.51	0.133	0.124	8.8	0.32	3247	3589	263	70	D	M	0.0292	128.0	2.69	2783	9.9	96.1	2.02	374	13.3	26.4	0.55	89	14.9	7.0	0.15
45	53	3966	9.5	9.1	10.2	12.2	13.1	1.49	3.4	6.4	0.34	1.83	28.4	114	1.59	0.130	0.121	9.2	0.35	3403	3589	270	73	D	M	0.0381	151.3	2.88	2879	10.4	123.1	2.34	644	13.6	50.6	0.96	216	15.1	18.8	0.36
50	58	3589	10.4	9.9	10.9	13.1	14.0	1.58	3.6	7.0	0.33	2.07	30.4	112	1.67	0.128	0.119	9.4	0.37	3519	3589	273	74	D	M	0.0483	173.2	3.01	2844	11.0	148.2	2.57	907	13.9	79.1	1.37	388	15.3	37.2	0.65
55	63	3252	11.2	10.7	11.6	13.8	14.8	1.67	3.7	7.5	0.33	2.32	32.0	110	1.75	0.127	0.119	9.6	0.39	3603	3589	273	75	D	M	0.0594	193.2	3.09	2736	11.6	171.0	2.73	1125	14.3	108.5	1.73	575	15.6	60.5	0.97
60	68	2953	12.0	11.4	12.3	14.5	15.5	1.76	3.9	8.1	0.32	2.57	33.2	109	1.84	0.127	0.119	9.6	0.41	3661	3589	271	76	D	M	0.0715	211.2	3.12	2590	12.2	191.3	2.83	1283	14.7	136.6	2.02	749	15.9	86.2	1.28
65	73	2690	12.7	12.2	12.9	15.1	16.2	1.85	4.0	8.5	0.32	2.83	34.2	107	1.93	0.127	0.119	9.6	0.42	3698	3589	268	76	D	M	0.0845	227.4	3.13	2431	12.9	209.4	2.88	1384	15.1	162.2	2.23	894	16.3	112.2	1.55
70	78	2457	13.5	12.9	13.4	15.7	16.8	1.93	4.2	9.0	0.31	3.09	34.9	106	2.02	0.128	0.120	9.5	0.43	3718	3589	264	76	D	M	0.0984	241.7	3.11	2269	13.5	225.1	2.90	1437	15.5	184.8	2.38	1002	16.6	137.0	1.77
75	83	2252	14.2	13.6	14.0	16.3	17.4	2.01	4.3	9.4	0.31	3.35	35.5	105	2.11	0.130	0.121	9.4	0.44	3725	3589	260	76	D	M	0.1129	254.2	3.08	2114	14.1	239.0	2.89	1453	16.0	204.4	2.47	1077	17.0	159.9	1.94
80	88	2071	14.9	14.2	14.4	16.8	17.9	2.09	4.5	9.7	0.31	3.62	35.9	103	2.20	0.131	0.123	9.3	0.44	3722	3589	255	75	D	M	0.1280	265.1	3.03	1968	14.7	251.0	2.87	1442	16.4	221.2	2.53	1121	17.4	180.2	2.06
85	93	1911	15.5	14.9	14.9	17.2	18.4	2.17	4.6	10.1	0.31	3.89	36.2	102	2.29	0.133	0.125	9.2	0.45	3712	3589	249	74	D	M	0.1437	274.6	2.97	1834	15.3	261.4	2.82	1413	16.8	235.5	2.54	1142	17.8	198.2	2.14
90	98	1769	16.2	15.5	15.3	17.7	18.8	2.24	4.7	10.4	0.31	4.15	36.4	101	2.38	0.135	0.126	9.0	0.45	3696	3589	244	73	D	M	0.1598	282.7	2.90	1710	15.9	270.2	2.77	1373	17.3	247.6	2.54	1144	18.2	213.8	2.19
95	103	1644	16.8	16.2	15.7	18.1	19.2	2.31	4.9	10.7	0.31	4.42	36.5	100	2.47	0.137	0.128	8.9	0.45	3676	3589	239	73	D	M	0.1763	289.8	2.82	1598	16.5	278.0	2.71	1326	17.8	257.9	2.51	1133	18.6	227.3	2.22
100	108	1532	17.4	16.8	16.1	18.4	19.6	2.38	5.0	10.9	0.31	4.69	36.5	98	2.55	0.139	0.130	8.7	0.45	3653	3589	234	72	D	M	0.1931	295.8	2.75	1496	17.0	284.5	2.64	1275	18.2	266.6	2.48	1113	19.0	238.9	2.22
105	113	1432	18.0	17.3	16.5	18.8	20.0	2.45	5.1	11.2	0.31	4.95	36.5	97	2.64	0.141	0.132	8.6	0.45	3629	3589	228	71	D	M	0.2101	300.8	2.67	1404	17.6	290.1	2.58	1222	18.7	273.8	2.43	1086	19.4	248.8	2.21
110	118	1343	18.6	17.9	16.8	19.1	20.3	2.51	5.2	11.4	0.31	5.22	36.4	96	2.73	0.143	0.134	8.4	0.45	3603	3589	224	70	D	M	0.2272	305.1	2.59	1320	18.1	294.8	2.51	1171	19.1	280.0	2.38	1056	19.8	257.3	2.19
115	123	1263	19.1	18.4	17.1	19.4	20.6	2.57	5.3	11.6	0.31	5.48	36.3	95	2.81	0.145	0.136	8.3	0.45	3578	3589	219	69	C	M	0.2444	308.7	2.52	1245	18.6	298.8	2.44	1121	19.6	285.1	2.33	1023	20.2	264.4	2.16
120	128	1191	19.7	19.0	17.4	19.7	20.9	2.64	5.4	11.8	0.31	5.74	36.2	94	2.90	0.147	0.139	8.2	0.45	3552	3589	214	68	C	M	0.2617	311.7	2.44	1176	19.1	302.1	2.37	1072	20.0	289.3	2.27	989	20.6	270.5	2.12
125	133	1126	20.2	19.5	17.7	20.0	21.2	2.69	5.6	11.9	0.31	6.00	36.1	93	2.98	0.149	0.141	8.0	0.45	3526	3589	210	68	C	M	0.2790	314.2	2.37	1114	19.6	304.9	2.30	1027	20.4	292.9	2.21	955	21.0	275.6	2.08
130	138	1067	20.7	20.0	18.0	20.2	21.4	2.75	5.7	12.1	0.32	6.25	36.0	92	3.06	0.151	0.143	7.9	0.44	3501	3589	206	67	C	M	0.2963	316.1	2.30	1057	20.1	307.1	2.23	983	20.9	295.8	2.15	922	21.4	279.9	2.03
135	143	1014	21.2	20.5	18.2	20.5	21.7	2.81	5.8	12.2	0.32	6.51	35.8	91	3.14	0.153	0.145	7.8	0.44	3477	3589	202	66	C	M	0.3134	317.8	2.23	1006	20.6	309.0	2.17	943	21.3	298.3	2.09	890	21.8	283.6	1.99
140	148	966	21.7	21.0	18.5	20.7	21.9	2.86	5.9	12.3	0.32	6.76	35.7	90	3.22	0.155	0.147	7.7	0.44	3454	3589	199	65	C	M	0.3304	319.2	2.16	959	21.1	310.6	2.10	905	21.7	300.3	2.03	859	22.2	286.8	1.94
145	153	922	22.2	21.4	18.7	20.9	22.1	2.91	5.9	12.4	0.32	7.01	35.6	89	3.29	0.157	0.149	7.6	0.44	3433	3589	195	65	C	M	0.3473	320.2	2.10	916	21.5	311.8	2.04	870	22.1	302.0	1.98	829	22.6	289.3	1.90
150	158	881	22.6	21.9	18.9	21.1	22.3	2.97	6.0	12.5	0.32	7.25	35.4	88	3.37	0.159	0.151	7.4	0.44	3412	3589	192	64	C	M	0.3639	320.6	2.03	876	22.0	312.5	1.98	836	22.5	303.0	1.92	800	22.9	291.2	1.85
155	163	845	23.1	22.3	19.1	21.3	22.5	3.02	6.1	12.6	0.32	7.50	35.3	87	3.44	0.161	0.153	7.4	0.44	3392	3589	189	63	C	M	0.3805	321.5	1.98	841	22.4	313.5	1.93	806	22.9	304.2	1.87	774	23.3	293.2	1.80
160	168	811	23.5	22.7	19.3	21.5	22.7	3.06	6.2	12.6	0.33	7.74	35.2	86	3.51	0.163	0.155	7.3	0.43	3374	3589	186	63	C	M	0.3967	321.7	1.92	807	22.8	313.8	1.87	777	23.3	304.9	1.82	749	23.7	294.6	1.76
165	173	780	23.9	23.1	19.5	21.7	22.9	3.11	6.3	12.7	0.33	7.97	35.1	85	3.58	0.165	0.156	7.2	0.43	3357	3589	183	62	C	M	0.4127	321.9	1.87	777	23.2	314.1	1.82	750	23.7	305.4	1.77	725	24.0	295.7	1.71
170	178	751	24.3	23.5	19.7	21.9	23.0	3.16	6.4	12.7	0.33	8.21	34.9	84	3.65	0.167	0.158	7.1	0.43	3341	3589	181	62	C	M	0.4284	321.7	1.81	748	23.6	314.1	1.77	724	24.1	305.6	1.72	703	24.4	296.5	1.67
175	183	725	24.7	23.9	19.8	22.0	23.2	3.20	6.4	12.8	0.33	8.44	34.8	83	3.71	0.169	0.160	7.0	0.43	3327	3589	178	61	C	M	0.4439	321.8	1.76	723	24.0	314.3	1.72	701	24.4	305.9	1.68	682	24.7	297.4	1.63
180	188	700	25.1	24.3	20.0	22.2	23.4	3.24	6.5	12.8	0.33	8.66	34.7	82	3.78	0.171	0.162	6.9	0.43	3313	3589	176	61	C	M	0.4590	321.3	1.71	698	24.4	313.9	1.67	679	24.8	305.7	1.63	662	25.1	297.6	1.59

Table A60. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 14 m Initial Density = 8000 stems/ha																																								
5	13	7881	1.3	1.2	2.1	2.6	2.8	0.69	1.4	0.5	0.74	0.38	1.0	192	1.13	0.428	0.408	0.9	0.01	1053	3759	58	30	A	M	0.0001	1.1	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	7603	2.6	2.4	3.2	4.1	4.3	0.78	1.9	1.1	0.62	0.48	4.0	141	1.15	0.280	0.265	2.5	0.04	1432	3759	106	37	B	M	0.0009	6.6	0.38	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	7196	3.7	3.5	4.4	5.5	5.9	0.88	2.2	1.9	0.53	0.62	7.9	130	1.18	0.213	0.201	4.1	0.09	1838	3759	151	45	B	M	0.0025	18.1	0.80	5	8.2	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	6704	4.8	4.5	5.5	6.9	7.3	0.98	2.5	2.7	0.47	0.78	12.2	125	1.22	0.178	0.166	5.6	0.14	2233	3759	190	52	C	M	0.0053	35.2	1.28	243	8.2	3.2	0.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	6169	5.8	5.5	6.5	8.1	8.7	1.08	2.7	3.5	0.43	0.96	16.4	122	1.27	0.156	0.146	6.8	0.19	2590	3759	221	59	C	M	0.0092	56.6	1.74	1027	8.5	16.9	0.52	2	12.5	0.1	0.00	0	0.0	0.0	0.00
30	38	5626	6.8	6.4	7.5	9.3	10.0	1.18	2.9	4.3	0.39	1.15	20.2	120	1.33	0.143	0.134	7.8	0.24	2895	3759	244	65	C	M	0.0143	80.5	2.14	1907	8.8	40.1	1.07	31	12.8	1.7	0.05	2	14.2	0.1	0.00
35	43	5101	7.7	7.3	8.5	10.4	11.1	1.28	3.1	5.0	0.37	1.35	23.7	118	1.40	0.135	0.126	8.5	0.29	3146	3759	261	69	C	M	0.0207	105.4	2.47	2533	9.3	67.8	1.59	141	13.0	8.8	0.21	19	14.6	1.3	0.03
40	48	4610	8.6	8.1	9.3	11.3	12.2	1.38	3.2	5.7	0.35	1.57	26.6	116	1.47	0.130	0.121	9.1	0.32	3346	3759	272	72	D	M	0.0282	130.1	2.73	2864	9.8	96.4	2.03	352	13.3	24.6	0.52	79	14.8	6.2	0.13
45	53	4162	9.4	8.9	10.1	12.2	13.1	1.48	3.4	6.4	0.34	1.80	29.0	114	1.55	0.127	0.118	9.5	0.36	3498	3759	278	75	D	M	0.0370	153.8	2.92	2976	10.4	124.0	2.36	623	13.6	48.5	0.92	200	15.0	17.3	0.33
50	58	3759	10.2	9.8	10.9	13.0	14.0	1.57	3.5	7.0	0.33	2.03	31.0	113	1.63	0.125	0.117	9.7	0.38	3612	3759	281	76	D	M	0.0468	175.8	3.05	2946	10.9	149.5	2.60	894	13.9	77.0	1.34	369	15.3	35.0	0.61
55	63	3400	11.0	10.5	11.6	13.8	14.8	1.66	3.7	7.5	0.32	2.28	32.6	111	1.71	0.124	0.116	9.8	0.40	3692	3759	281	77	D	M	0.0576	196.0	3.13	2837	11.5	172.6	2.76	1122	14.2	106.8	1.71	558	15.6	58.0	0.93
60	68	3083	11.8	11.3	12.2	14.5	15.5	1.75	3.8	8.0	0.32	2.52	33.8	109	1.80	0.124	0.116	9.8	0.42	3746	3759	279	78	D	M	0.0695	214.2	3.17	2687	12.1	193.3	2.86	1291	14.6	135.5	2.00	737	15.9	83.7	1.24
65	73	2803	12.6	12.0	12.8	15.1	16.2	1.83	4.0	8.5	0.31	2.78	34.8	108	1.89	0.125	0.117	9.8	0.43	3779	3759	275	78	D	M	0.0822	230.4	3.17	2521	12.7	211.5	2.91	1401	15.0	161.7	2.23	888	16.2	110.0	1.52
70	78	2557	13.3	12.7	13.4	15.7	16.8	1.91	4.1	8.9	0.31	3.03	35.5	107	1.98	0.126	0.118	9.7	0.44	3795	3759	271	78	D	M	0.0957	244.7	3.15	2353	13.3	227.5	2.93	1461	15.4	184.8	2.38	1004	16.6	135.3	1.74
75	83	2341	14.0	13.4	13.9	16.2	17.4	1.99	4.3	9.3	0.31	3.29	36.1	105	2.07	0.127	0.119	9.6	0.45	3799	3759	266	77	D	M	0.1099	257.3	3.12	2191	14.0	241.5	2.92	1482	15.9	204.9	2.48	1085	16.9	158.6	1.92
80	88	2150	14.7	14.1	14.4	16.7	17.9	2.07	4.4	9.7	0.31	3.56	36.5	104	2.16	0.129	0.121	9.5	0.45	3792	3759	260	76	D	M	0.1247	268.2	3.06	2039	14.6	253.5	2.89	1474	16.3	222.1	2.54	1134	17.3	179.4	2.05
85	93	1982	15.4	14.7	14.8	17.2	18.4	2.15	4.5	10.0	0.31	3.82	36.7	102	2.25	0.131	0.122	9.4	0.45	3778	3759	255	76	D	M	0.1401	277.7	3.00	1898	15.1	264.0	2.85	1447	16.7	236.8	2.56	1159	17.7	197.9	2.14
90	98	1833	16.0	15.4	15.3	17.6	18.8	2.22	4.7	10.4	0.31	4.08	36.9	101	2.34	0.132	0.124	9.2	0.46	3759	3759	249	75	D	M	0.1559	285.8	2.93	1769	15.7	272.9	2.80	1406	17.2	249.1	2.55	1164	18.1	213.9	2.19
95	103	1701	16.6	16.0	15.7	18.0	19.2	2.29	4.8	10.6	0.31	4.35	37.0	100	2.42	0.134	0.126	9.1	0.46	3736	3759	244	74	D	M	0.1721	292.8	2.85	1651	16.3	280.6	2.74	1359	17.6	259.6	2.53	1154	18.5	227.6	2.22
100	108	1584	17.2	16.6	16.0	18.4	19.6	2.36	4.9	10.9	0.31	4.61	37.0	99	2.51	0.136	0.128	8.9	0.46	3711	3759	238	73	D	M	0.1886	298.7	2.78	1545	16.9	287.2	2.67	1307	18.1	268.4	2.49	1135	18.9	239.5	2.23
105	113	1480	17.8	17.2	16.4	18.8	20.0	2.43	5.0	11.1	0.31	4.87	37.0	98	2.60	0.139	0.130	8.8	0.46	3684	3759	233	72	D	M	0.2053	303.9	2.70	1449	17.4	292.8	2.60	1255	18.5	275.9	2.45	1109	19.3	249.7	2.22
110	118	1386	18.4	17.7	16.7	19.1	20.3	2.49	5.2	11.4	0.31	5.14	36.9	96	2.69	0.141	0.132	8.6	0.46	3656	3759	228	71	D	M	0.2222	308.0	2.62	1362	17.9	297.4	2.53	1201	19.0	281.9	2.40	1078	19.7	258.2	2.20
115	123	1303	19.0	18.3	17.0	19.4	20.6	2.55	5.3	11.5	0.31	5.40	36.8	95	2.77	0.143	0.134	8.5	0.46	3627	3759	223	70	D	M	0.2392	311.7	2.54	1283	18.5	301.5	2.46	1150	19.4	287.3	2.34	1046	20.1	265.7	2.17
120	128	1228	19.5	18.8	17.3	19.7	20.9	2.62	5.4	11.7	0.31	5.65	36.7	94	2.85	0.145	0.136	8.3	0.45	3599	3759	218	69	C	M	0.2563	314.7	2.47	1212	19.0	304.9	2.39	1101	19.9	291.7	2.29	1012	20.5	272.0	2.13
125	133	1160	20.0	19.3	17.6	20.0	21.2	2.67	5.5	11.9	0.31	5.91	36.5	93	2.94	0.147	0.139	8.2	0.45	3571	3759	214	69	C	M	0.2733	317.0	2.39	1147	19.5	307.5	2.32	1053	20.3	295.2	2.23	977	20.9	277.1	2.09
130	138	1099	20.5	19.8	17.9	20.2	21.4	2.73	5.6	12.0	0.31	6.16	36.4	92	3.02	0.149	0.141	8.0	0.45	3545	3759	210	68	C	M	0.2903	319.0	2.32	1088	20.0	309.9	2.25	1009	20.7	298.2	2.17	943	21.3	281.6	2.05
135	143	1043	21.0	20.3	18.1	20.5	21.7	2.79	5.7	12.2	0.32	6.42	36.2	91	3.10	0.151	0.143	7.9	0.45	3519	3759	206	67	C	M	0.3072	320.4	2.25	1034	20.4	311.5	2.18	967	21.1	300.5	2.11	910	21.6	285.2	2.00
140	148	993	21.5	20.8	18.4	20.7	21.9	2.84	5.8	12.3	0.32	6.66	36.1	90	3.17	0.153	0.145	7.8	0.45	3494	3759	202	66	C	M	0.3241	321.8	2.18	986	20.9	313.1	2.12	928	21.6	302.6	2.05	878	22.0	288.4	1.95
145	153	947	22.0	21.2	18.6	20.9	22.1	2.89	5.9	12.4	0.32	6.91	35.9	89	3.25	0.156	0.147	7.7	0.44	3470	3759	198	65	C	M	0.3408	322.7	2.11	941	21.3	314.2	2.06	891	22.0	304.1	1.99	848	22.4	291.0	1.91
150	158	905	22.4	21.7	18.8	21.1	22.3	2.95	6.0	12.5	0.32	7.15	35.8	88	3.32	0.158	0.149	7.6	0.44	3448	3759	195	65	C	M	0.3572	323.3	2.05	900	21.8	315.0	2.00	857	22.4	305.3	1.94	819	22.8	293.1	1.86
155	163	866	22.9	22.1	19.0	21.3	22.5	2.99	6.1	12.5	0.32	7.40	35.6	87	3.40	0.160	0.151	7.4	0.44	3427	3759	192	64	C	M	0.3736	323.5	1.99	862	22.2	315.4	1.94	824	22.8	306.0	1.88	791	23.2	294.6	1.81
160	168	831	23.3	22.5	19.2	21.5	22.7	3.04	6.2	12.6	0.32	7.63	35.5	86	3.47	0.161	0.153	7.3	0.44	3407	3759	189	63	C	M	0.3897	323.8	1.93	827	22.6	315.8	1.88	794	23.1	306.7	1.83	765	23.5	296.0	1.77
165	173	799	23.7	23.0	19.4	21.7	22.9	3.09	6.2	12.7	0.33	7.87	35.4	85	3.54	0.163	0.155	7.3	0.44	3388	3759	186	63	C	M	0.4055	324.0	1.88	796	23.0	316.2	1.83	767	23.5	307.3	1.78	741	23.9	297.3	1.72
170	178	769	24.1	23.4	19.6	21.8	23.0	3.14	6.3	12.7	0.33	8.10	35.2	84	3.61	0.165	0.156	7.2	0.43	3371	3759	183	62	C	M	0.4211	323.8	1.82	766	23.4	316.1	1.78	741	23.9	307.5	1.73	718	24.2	298.1	1.68
175	183	742	24.5	23.8	19.7	22.0	23.2	3.18	6.4	12.8	0.33	8.33	35.1	84	3.67	0.167	0.158	7.1	0.43	3355	3759	181	62	C	M	0.4364	323.8	1.77	740	23.8	316.3	1.73	717	24.2	307.8	1.69	696	24.6	298.9	1.64
180	188	716	24.9	24.1	19.9	22.1	23.4	3.22	6.5	12.8	0.33	8.56	35.0	83	3.74	0.169	0.160	7.0	0.43	3341	3759	178	61	C	M	0.4515	323.3	1.72	714	24.2	315.8	1.68	694	24.6	307.5	1.64	675	24.9	299.1	1.59
SI = 14 m Initial Density = 9000 stems/ha																																								
5	13	8859	1.2	1.2	2.1	2.6	2.8	0.69	1.4	0.5	0.73	0.37	1.1	197	1.06	0.404	0.385	1.0	0.01	1171	4091	64	33	B	M	0.0001	1.1	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	8530	2.5	2.3	3.2	4.1	4.3	0.77	1.8	1.1	0.61	0.47	4.2	144	1.08	0.265	0.250	2.7	0.05	1572	4091	115	40	B	M	0.0008	6.9	0.39	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	8050	3.6	3.4	4.4	5.5	5.9	0.87	2.2	1.9	0.53	0.60	8.3	132	1.11	0.202	0.190	4.4	0.10	1999	4091	163	49	B	M	0.0023	18.8	0.83	3	8.1	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	7472	4.7	4.4	5.4	6.9	7.3	0.97	2.4	2.7	0.46	0.76	12.8	127	1.16	0.169	0.158	5.9	0.15	2409	4091	204	57	C	M	0.0049	36.6	1.33	203	8.2	2.6	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	6847	5.7	5.3	6.5	8.1	8.7	1.07	2.6	3.5	0.42	0.93	17.2	124	1.21	0.149	0.139	7.2	0.20	2775	4091	237	63	C	M	0.0086	58.6	1.80	974	8.4	15.5	0.48	2	12.2	0.1	0.00	0	0.0	0.0	0.00
30	38	6218	6.6	6.2	7.5	9.3	10.0	1.17	2.8	4.3	0.39	1.11	21.2	121	1.27	0.137	0.127	8.3	0.26	3085	4091	261	69	C	M	0.0134	83.3	2.22	1917	8.8	38.7	1.03	22	12.7	1.2	0.03	0	0.0	0.0	0.00
35	43	5615	7.5	7.1	8.4	10.3	11.1	1.26	3.0	5.0	0.36	1.31	24.7	119	1.33	0.129	0.120	9.0	0.30	3336	4091	278	73	D	M	0.0194	108.8	2.55	2622	9.2	67.2	1.58	115	12.9	7.1	0.17	13	14.6	0.9	0.02
40	48	5054	8.4	7.9	9.2	11.3	12.2	1.36	3.1	5.7	0.35	1.52	27.7	117	1.41	0.124	0.116	9.6	0.34	3532	4091	288	77	D	M	0.0265	134.1	2.82	3012	9.7	96.8	2.03	312	13.2	21.5	0.45	62	14.8	4.8	0.10
45	53	4546	9.2	8.7	10.0	12.2	13.1	1.45	3.3	6.3	0.33	1.74	30.2	115	1.48	0.122	0.113	10.0	0.37	3680	4091	294	79	D	M	0.0348	158.2	3.01	3155	10.2	125.3	2.38	582	13.5	44.4	0.84	170	15.0	14.5	0.28
50	58	4091	10.0	9.5	10.7	13.0	14.0	1.54	3.4	6.9	0.33	1.96	32.2	114	1.56	0.120	0.112	10.2	0.40	3787	4091	296	80	D	M	0.0441	180.6	3.14	3138	10.8	151.6	2.63	864	13.8	72.9	1.27	333	15.2	31.0	0.54
55	63	3689	10.8	10.3	11.4	13.8	14.8	1.63	3.6	7.5	0.32	2.20	33.8	112	1.65	0.120	0.111	10.3	0.42	3860	4091	295	81	D	M	0.0545	201.0	3.21	3029	11.3	175.5	2.80	1111	14.1	103.3	1.65	524	15.5	53.3	0.85
60	68	3335	11.6	11.0	12.1	14.4	15.5	1.72	3.7	8.0	0.31	2.44	35.0	110	1.73	0.120	0.112	10.3	0.43	3906	4091	293	81	D	M	0.0658	219.4	3.25	2871	11.9	196.7	2.91	1300	14.5	132.9	1.97	711	15.8	78.9	1.17
65	73	3024	12.3	11.8	12.7	15.1	16.2	1.80	3.9	8.4	0.31	2.69	36.0	109	1.82	0.121	0.112	10.3	0.45	3932	4091	288	81	D	M	0.0779	235.7	3.25	2694	12.5	215.3	2.97	1428	14.9	160.2	2.21	874	16.1	105.6	1.45
70	78	2752	13.0	12.5	13.2	15.7	16.8	1.88	4.0	8.9	0.31	2.94	36.7	107	1.91	0.122	0.113	10.2	0.46	3940	4091	283	81	D	M	0.0909	250.2	3.22	2513	13.1	231.6	2.98	1502	15.3	184.4	2.38	1002	16.4	131.5	1.69
75	83	2513	13.7	13.1	13.7	16.2	17.4	1.96	4.2	9.3	0.30	3.19	37.2	106	1.99	0.123	0.115	10.0	0.46	3937	4091	278	80	D	M	0.1045	262.7	3.18	2338	13.7	245.8	2.98	1532	15.7	205.4	2.49	1095	16.8	155.7	1.89
80	88	2304	14.4	13.8	14.2	16.7	17.9	2.04	4.3	9.6	0.30	3.44	37.6	105	2.08	0.125	0.116	9.9	0.47	3923	4091	272	79	D	M	0.1188	273.8	3.13	2174	14.3	258.1	2.95	1531	16.1	223.4	2.55	1155	17.1	177.5	2.03
85	93	2119	15.1	14.5	14.7	17.2	18.4	2.11	4.4	10.0	0.30	3.70	37.8	103	2.17	0.127	0.118	9.7	0.47	3903	4091	265	78	D	M	0.1336	283.2	3.06	2021	14.9	268.6	2.90	1507	16.5	238.6	2.58	1187	17.5	196.7	2.12
90	98	1957	15.7	15.1	15.1	17.6	18.8	2.19	4.6	10.3	0.30	3.96	37.9	102	2.26	0.129	0.120	9.6	0.47	3878	4091	259	77	D	M	0.1489	291.4	2.99	1882	15.5	277.7	2.85	1469	17.0	251.6	2.58	1198	17.9	213.5	2.19
95	103	1813	16.3	15.7	15.5	18.0	19.2	2.26	4.7	10.6	0.30	4.22	38.0	101	2.35	0.131	0.122	9.4	0.47	3849	4091	253	76	D	M	0.1645	298.3	2.91	1755	16.0	285.5	2.78	1422	17.4	262.5	2.56	1193	18.3	228.0	2.22
100	108	1685	16.9	16.3	15.9	18.4	19.6	2.32	4.8	10.8	0.30	4.47	37.9	100	2.44	0.133	0.124	9.2	0.47	3819	4091	247	75	D	M	0.1805	304.1	2.83	1640	16.6	292.0	2.71	1369	17.8	271.6	2.52	1176	18.6	240.4	2.23
105	113	1572	17.5	16.9	16.2	18.7	20.0	2.39	4.9	11.1	0.30	4.73	37.9	98	2.52	0.135	0.126	9.0	0.47	3786	4091	242	74	D	M	0.1967	309.2	2.75	1536	17.1	297.6	2.64	1314	18.3	279.3	2.48	1151	19.0	251.0	2.23
110	118	1470	18.1	17.4	16.6	19.0	20.3	2.46	5.1	11.3	0.31	4.99	37.8	97	2.61	0.137	0.128	8.9	0.47	3753	4091	236	73	D	M	0.2131	313.2	2.66	1442	17.6	302.2	2.57	1259	18.7	285.6	2.43	1121	19.4	259.9	2.21
115	123	1380	18.6	17.9	16.9	19.3	20.6	2.52	5.2	11.5	0.31	5.24	37.6	96	2.69	0.139	0.131	8.7	0.47	3721	4091	231	72	D	M	0.2296	316.9	2.58	1357	18.2	306.2	2.50	1205	19.2	291.0	2.37	1088	19.8	267.7	2.18
120	128	1298	19.2	18.5	17.2	19.6	20.9	2.58	5.3	11.7	0.31	5.50	37.5	95	2.78	0.141	0.133	8.6	0.46	3688	4091	226	71	D	M	0.2462	319.6	2.50	1279	18.7	309.3	2.42	1153	19.6	295.3	2.31	1053	20.2	274.0	2.15
125	133	1225	19.7	19.0	17.4	19.9	21.2	2.64	5.4	11.8	0.31	5.75	37.3	94	2.86	0.144	0.135	8.4	0.46	3656	4091	221	70	D	M	0.2628	321.9	2.43	1210	19.2	312.1	2.35	1103	20.0	298.9	2.25	1018	20.6	279.5	2.11
130	138	1159	20.2	19.5	17.7	20.2	21.4	2.69	5.5	12.0	0.31	6.00	37.2	93	2.94	0.146	0.137	8.3	0.46	3626	4091	216	69	C	M	0.2794	323.8	2.35	1147	19.6	314.3	2.28	1056	20.4	301.9	2.19	983	21.0	284.1	2.06
135	143	1099	20.7	20.0	18.0	20.4	21.7	2.75	5.6	12.1	0.31	6.24	37.0	92	3.02	0.148	0.139	8.1	0.46	3596	4091	212	69	C	M	0.2959	325.2	2.28	1089	20.1	316.0	2.22	1012	20.9	304.3	2.13	948	21.4	287.9	2.02
140	148	1045	21.2	20.4	18.2	20.6	21.9	2.80	5.7	12.2	0.31	6.49	36.8	91	3.09	0.150	0.141	8.0	0.45	3568	4091	208	68	C	M	0.3123	326.4	2.21	1036	20.6	317.4	2.15	971	21.3	306.4	2.08	915	21.8	291.2	1.97
145	153	995	21.6	20.9	18.4	20.8	22.1	2.86	5.8	12.3	0.32	6.73	36.6	90	3.17	0.152	0.143	7.9	0.45	3541	4091	204	67	C	M	0.3287	327.1	2.14	988	21.0	318.3	2.09	931	21.7	307.7	2.02	883	22.1	293.7	1.92
150	158	950	22.1	21.3	18.6	21.0	22.3	2.91	5.9	12.4	0.32	6.97	36.4	89	3.24	0.154	0.145	7.8	0.45	3515	4091	200	66	C	M	0.3448	327.6	2.08	944	21.4	319.1	2.02	895	22.1	308.9	1.96	853	22.5	295.9	1.88
155	163	909	22.5	21.8	18.8	21.2	22.5	2.96	6.0	12.5	0.32	7.21	36.3	88	3.32	0.156	0.147	7.6	0.45	3491	4091	197	66	C	M	0.3608	328.0	2.02	904	21.9	319.7	1.97	861	22.5	309.8	1.91	824	22.9	297.7	1.83
160	168	871	23.0	22.2	19.0	21.4	22.7	3.00	6.1	12.6	0.32	7.44	36.1	87	3.39	0.158	0.149	7.5	0.44	3468	4091	194	65	C	M	0.3767	328.1	1.96	867	22.3	319.9	1.91	829	22.8	310.4	1.85	797	23.2	299.1	1.78
165	173	836	23.4	22.6	19.2	21.6	22.9	3.05	6.1	12.6	0.32	7.68	35.9	86	3.46	0.160	0.151	7.4	0.44	3447	4091	191	64	C	M	0.3922	327.9	1.90	832	22.7	319.9	1.85	800	23.2	310.7	1.80	771	23.6	300.1	1.74
170	178	804	23.8	23.0	19.4	21.8	23.0	3.10	6.2	12.7	0.33	7.90	35.8	85	3.53	0.162	0.153	7.3	0.44	3427	4091	188	64	C	M	0.4076	327.7	1.85	801	23.1	319.8	1.80	772	23.6	310.9	1.75	746	23.9	300.8	1.69
175	183	775	24.2	23.4	19.6	21.9	23.2	3.14	6.3	12.7	0.33	8.13	35.7	84	3.59	0.164	0.155	7.2	0.44	3409	4091	185	63	C	M	0.4227	327.6	1.79	772	23.5	319.8	1.75	747	23.9	311.1	1.70	724	24.3	301.7	1.65
180	188	747	24.6	23.8	19.7	22.1	23.4	3.18	6.4	12.8	0.33	8.36	35.5	83	3.66	0.166	0.157	7.2	0.44	3392	4091	182	62	C	M	0.4376	326.9	1.74	745	23.8	319.2	1.70	722	24.3	310.7	1.66	701	24.6	301.7	1.61

Table A61. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
		SI = 14 m Initial Density = 10000 stems/ha																																						
5	13	9837	1.2	1.1	2.1	2.6	2.8	0.69	1.4	0.5	0.72	0.37	1.1	203	1.01	0.384	0.365	1.0	0.01	1288	4414	69	37	B	M	0.0001	1.1	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	9454	2.4	2.3	3.2	4.1	4.3	0.77	1.8	1.1	0.61	0.47	4.4	147	1.03	0.252	0.238	2.8	0.05	1710	4414	124	44	B	M	0.0008	7.1	0.40	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	8898	3.5	3.3	4.3	5.5	5.9	0.86	2.1	1.9	0.52	0.59	8.7	134	1.06	0.193	0.181	4.6	0.10	2156	4414	175	53	C	M	0.0022	19.5	0.86	2	8.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	8232	4.6	4.3	5.4	6.9	7.3	0.96	2.4	2.7	0.46	0.74	13.4	129	1.10	0.161	0.150	6.3	0.16	2579	4414	218	61	C	M	0.0046	37.8	1.37	169	8.2	2.1	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	7516	5.5	5.2	6.4	8.1	8.7	1.05	2.5	3.5	0.41	0.90	17.9	125	1.15	0.142	0.132	7.6	0.22	2952	4414	252	68	C	M	0.0080	60.5	1.86	918	8.4	14.2	0.44	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	38	6800	6.4	6.1	7.4	9.3	10.0	1.15	2.7	4.3	0.38	1.08	22.1	123	1.21	0.131	0.122	8.7	0.27	3265	4414	277	73	D	M	0.0126	85.7	2.28	1912	8.7	37.3	0.99	16	12.7	0.9	0.02	0	0.0	0.0	0.00
35	43	6117	7.3	6.9	8.3	10.3	11.1	1.24	2.9	5.0	0.36	1.27	25.7	120	1.28	0.124	0.115	9.5	0.31	3515	4414	294	78	D	M	0.0183	111.8	2.62	2690	9.1	66.3	1.56	94	12.9	5.8	0.14	9	14.5	0.6	0.01
40	48	5488	8.2	7.7	9.1	11.3	12.2	1.34	3.0	5.7	0.34	1.47	28.8	118	1.35	0.120	0.111	10.1	0.35	3707	4414	304	81	D	M	0.0251	137.6	2.89	3139	9.6	96.8	2.03	275	13.1	18.7	0.39	49	14.7	3.7	0.08
45	53	4919	9.0	8.5	9.9	12.2	13.1	1.43	3.2	6.3	0.33	1.68	31.3	116	1.43	0.117	0.109	10.4	0.39	3849	4414	309	83	D	M	0.0329	162.0	3.08	3317	10.1	126.1	2.40	540	13.4	40.6	0.77	145	14.9	12.2	0.23
50	58	4414	9.8	9.3	10.6	13.0	14.0	1.52	3.3	6.9	0.32	1.90	33.3	115	1.51	0.116	0.108	10.6	0.41	3950	4414	311	84	D	M	0.0419	184.8	3.21	3315	10.6	153.3	2.66	831	13.7	68.8	1.19	300	15.1	27.5	0.48
55	63	3969	10.6	10.1	11.3	13.7	14.8	1.61	3.5	7.4	0.31	2.13	34.9	113	1.59	0.116	0.107	10.7	0.43	4016	4414	309	85	D	M	0.0518	205.4	3.28	3208	11.2	177.7	2.84	1094	14.0	99.6	1.59	489	15.4	48.9	0.78
60	68	3579	11.3	10.8	12.0	14.4	15.5	1.69	3.6	7.9	0.31	2.37	36.1	111	1.67	0.116	0.108	10.7	0.45	4055	4414	306	85	D	M	0.0626	224.0	3.31	3044	11.7	199.4	2.95	1301	14.4	130.0	1.92	682	15.7	74.2	1.10
65	73	3238	12.1	11.5	12.5	15.0	16.2	1.77	3.8	8.4	0.31	2.61	37.0	110	1.76	0.117	0.109	10.7	0.46	4073	4414	301	84	D	M	0.0743	240.5	3.31	2857	12.3	218.5	3.01	1446	14.7	158.2	2.18	855	16.0	101.1	1.39
70	78	2940	12.8	12.2	13.1	15.6	16.8	1.85	3.9	8.8	0.30	2.85	37.7	108	1.84	0.118	0.110	10.5	0.47	4075	4414	295	84	D	M	0.0867	255.0	3.29	2665	12.9	235.1	3.03	1533	15.1	183.4	2.36	995	16.3	127.5	1.64
75	83	2680	13.5	12.9	13.6	16.2	17.4	1.93	4.1	9.2	0.30	3.10	38.2	107	1.93	0.120	0.111	10.4	0.48	4064	4414	289	83	D	M	0.0999	267.6	3.24	2479	13.5	249.5	3.02	1574	15.5	205.3	2.49	1099	16.6	152.4	1.85
80	88	2452	14.1	13.6	14.1	16.7	17.9	2.01	4.2	9.6	0.30	3.34	38.5	105	2.02	0.121	0.113	10.2	0.48	4045	4414	282	82	D	M	0.1136	278.6	3.18	2302	14.1	262.0	2.99	1580	15.9	224.0	2.56	1169	17.0	175.0	2.00
85	93	2252	14.8	14.2	14.5	17.1	18.4	2.08	4.3	9.9	0.30	3.59	38.7	104	2.11	0.123	0.115	10.1	0.48	4019	4414	275	81	D	M	0.1279	288.1	3.11	2139	14.6	272.7	2.95	1561	16.3	240.0	2.59	1209	17.3	195.0	2.11
90	98	2076	15.4	14.8	15.0	17.5	18.8	2.16	4.5	10.2	0.30	3.85	38.8	103	2.19	0.125	0.117	9.9	0.48	3988	4414	269	80	D	M	0.1427	296.2	3.04	1990	15.2	281.8	2.89	1525	16.8	253.4	2.60	1226	17.7	212.5	2.18
95	103	1920	16.0	15.4	15.3	17.9	19.2	2.22	4.6	10.5	0.30	4.10	38.8	102	2.28	0.127	0.119	9.7	0.48	3954	4414	262	79	D	M	0.1579	303.1	2.95	1854	15.8	289.5	2.82	1478	17.2	264.7	2.58	1225	18.1	227.6	2.22
100	108	1783	16.6	16.0	15.7	18.3	19.6	2.29	4.7	10.8	0.30	4.35	38.8	100	2.37	0.129	0.121	9.5	0.48	3918	4414	256	78	D	M	0.1733	309.0	2.87	1731	16.3	296.3	2.75	1426	17.6	274.2	2.55	1212	18.5	240.7	2.24
105	113	1660	17.2	16.6	16.1	18.7	20.0	2.36	4.9	11.0	0.30	4.60	38.7	99	2.45	0.132	0.123	9.3	0.48	3881	4414	249	76	D	M	0.1890	313.8	2.79	1619	16.8	301.7	2.68	1369	18.1	282.0	2.50	1188	18.8	251.6	2.23
110	118	1551	17.8	17.1	16.4	19.0	20.3	2.42	5.0	11.2	0.30	4.85	38.6	98	2.54	0.134	0.125	9.1	0.48	3844	4414	243	75	D	M	0.2050	317.9	2.70	1518	17.4	306.4	2.61	1313	18.5	288.6	2.45	1159	19.2	261.0	2.22
115	123	1454	18.3	17.7	16.7	19.3	20.6	2.48	5.1	11.4	0.30	5.10	38.4	97	2.62	0.136	0.127	9.0	0.48	3807	4414	238	74	D	M	0.2210	321.4	2.62	1428	17.9	310.3	2.53	1257	18.9	294.1	2.40	1127	19.6	269.1	2.20
120	128	1367	18.9	18.2	17.0	19.6	20.9	2.54	5.2	11.6	0.31	5.35	38.2	96	2.70	0.138	0.129	8.8	0.47	3770	4414	232	73	D	M	0.2372	324.3	2.54	1346	18.4	313.6	2.46	1203	19.4	298.7	2.34	1092	20.0	275.9	2.16
125	133	1288	19.4	18.7	17.3	19.8	21.2	2.60	5.3	11.8	0.31	5.60	38.0	95	2.79	0.140	0.132	8.6	0.47	3735	4414	227	72	D	M	0.2534	326.4	2.46	1271	18.9	316.2	2.38	1151	19.8	302.3	2.28	1056	20.4	281.5	2.12
130	138	1217	19.9	19.2	17.5	20.1	21.4	2.66	5.4	11.9	0.31	5.85	37.8	93	2.87	0.143	0.134	8.5	0.47	3700	4414	222	71	D	M	0.2696	328.1	2.38	1203	19.3	318.2	2.31	1102	20.2	305.3	2.22	1020	20.8	286.2	2.08
135	143	1153	20.4	19.7	17.8	20.3	21.7	2.72	5.5	12.1	0.31	6.09	37.6	92	2.95	0.145	0.136	8.3	0.47	3668	4414	218	70	D	M	0.2858	329.5	2.31	1141	19.8	319.9	2.24	1055	20.6	307.7	2.16	984	21.1	290.1	2.03
140	148	1095	20.9	20.1	18.0	20.6	21.9	2.77	5.6	12.2	0.31	6.33	37.4	91	3.02	0.147	0.138	8.2	0.46	3636	4414	214	69	C	M	0.3018	330.5	2.24	1085	20.3	321.2	2.18	1011	21.0	309.6	2.10	950	21.5	293.5	1.99
145	153	1042	21.3	20.6	18.3	20.8	22.1	2.82	5.7	12.3	0.31	6.57	37.2	90	3.10	0.149	0.140	8.1	0.46	3606	4414	209	68	C	M	0.3179	331.2	2.17	1034	20.7	322.2	2.11	970	21.4	311.1	2.04	917	21.9	296.2	1.94
150	158	994	21.8	21.0	18.5	21.0	22.3	2.87	5.8	12.4	0.32	6.81	37.0	89	3.17	0.151	0.142	7.9	0.46	3577	4414	206	68	C	M	0.3337	331.7	2.10	987	21.1	322.9	2.05	932	21.8	312.3	1.98	885	22.3	298.4	1.89
155	163	949	22.2	21.5	18.7	21.2	22.5	2.92	5.9	12.5	0.32	7.04	36.8	88	3.25	0.153	0.144	7.8	0.45	3551	4414	202	67	C	M	0.3494	331.6	2.04	943	21.6	323.0	1.99	895	22.2	312.8	1.92	854	22.6	299.9	1.84
160	168	909	22.7	21.9	18.9	21.4	22.7	2.97	6.0	12.5	0.32	7.27	36.6	87	3.32	0.155	0.146	7.7	0.45	3525	4414	198	66	C	M	0.3649	331.7	1.98	904	22.0	323.3	1.93	862	22.6	313.4	1.87	826	23.0	301.4	1.80
165	173	872	23.1	22.3	19.0	21.5	22.9	3.02	6.1	12.6	0.32	7.50	36.5	87	3.39	0.157	0.148	7.6	0.45	3502	4414	195	65	C	M	0.3803	331.6	1.92	868	22.4	323.3	1.87	831	22.9	313.8	1.82	799	23.3	302.5	1.75
170	178	838	23.5	22.7	19.2	21.7	23.0	3.06	6.1	12.7	0.32	7.73	36.3	86	3.45	0.159	0.150	7.5	0.45	3479	4414	192	65	C	M	0.3953	331.3	1.87	834	22.8	323.2	1.82	802	23.3	314.0	1.77	773	23.7	303.3	1.71
175	183	807	23.9	23.1	19.4	21.9	23.2	3.11	6.2	12.7	0.32	7.95	36.2	85	3.52	0.161	0.152	7.4	0.44	3459	4414	189	64	C	M	0.4103	331.1	1.81	804	23.2	323.1	1.77	775	23.6	314.1	1.72	750	24.0	304.1	1.67
180	188	777	24.3	23.5	19.6	22.0	23.4	3.15	6.3	12.7	0.33	8.17	36.0	84	3.59	0.163	0.154	7.3	0.44	3439	4414	186	63	C	M	0.4248	330.1	1.76	774	23.6	322.3	1.72	749	24.0	313.5	1.67	726	24.3	304.1	1.62
		SI = 14 m Initial Density = 15000 stems/ha																																						
5	13	14714	1.0	1.0	2.0	2.6	2.8	0.68	1.3	0.5	0.70	0.36	1.3	227	0.82	0.315	0.299	1.2	0.02	1860	5925	94	53	C	M	0.0001	1.3	0.10	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	14042	2.2	2.0	3.1	4.1	4.3	0.75	1.6	1.2	0.58	0.44	5.2	158	0.84	0.208	0.195	3.5	0.06	2371	5925	164	62	C	M	0.0006	8.0	0.45	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	13078	3.2	3.0	4.2	5.5	5.9	0.83	1.9	1.9	0.49	0.55	10.3	142	0.87	0.160	0.149	5.8	0.12	2886	5925	227	71	D	M	0.0017	22.0	0.97	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	11945	4.1	3.8	5.2	6.8	7.3	0.91	2.1	2.7	0.43	0.67	15.8	135	0.91	0.134	0.125	7.8	0.19	3353	5925	279	80	D	M	0.0036	42.5	1.54	60	8.0	0.7	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	10754	5.0	4.7	6.2	8.0	8.7	1.00	2.3	3.4	0.39	0.81	21.0	131	0.96	0.120	0.111	9.4	0.26	3747	5925	318	87	D	M	0.0063	67.5	2.07	645	8.1	8.9	0.27	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	38	9592	5.8	5.5	7.1	9.2	10.0	1.09	2.4	4.2	0.36	0.96	25.7	128	1.02	0.111	0.102	10.6	0.32	4059	5925	345	92	D	M	0.0099	95.0	2.53	1762	8.4	30.0	0.80	3	12.6	0.2	0.01	0	0.0	0.0	0.00
35	43	8511	6.7	6.3	8.0	10.2	11.1	1.17	2.6	4.9	0.34	1.13	29.7	125	1.08	0.106	0.098	11.5	0.37	4294	5925	362	96	D	M	0.0145	123.2	2.89	2759	8.8	59.4	1.39	33	12.7	1.9	0.04	1	14.4	0.1	0.00
40	48	7536	7.5	7.1	8.8	11.2	12.2	1.26	2.7	5.5	0.32	1.30	32.9	123	1.15	0.103	0.095	12.1	0.41	4461	5925	371	98	D	M	0.0200	150.6	3.16	3570	9.1	93.4	1.96	138	12.9	9.0	0.19	14	14.5	1.1	0.02
45	53	6676	8.2	7.8	9.5	12.1	13.1	1.34	2.9	6.1	0.31	1.49	35.6	121	1.22	0.101	0.093	12.4	0.45	4572	5925	374	99	D	M	0.0264	176.4	3.35	3913	9.6	125.9	2.39	347	13.1	24.8	0.47	63	14.7	5.0	0.10
50	58	5925	9.0	8.5	10.2	12.9	14.0	1.43	3.0	6.7	0.31	1.68	37.6	119	1.30	0.101	0.093	12.5	0.47	4639	5925	372	100	D	M	0.0338	200.2	3.48	4001	10.0	156.2	2.71	630	13.4	49.1	0.85	167	14.9	14.5	0.25
55	63	5275	9.7	9.3	10.9	13.6	14.8	1.51	3.2	7.2	0.30	1.88	39.2	117	1.38	0.101	0.093	12.6	0.49	4670	5925	368	99	D	M	0.0420	221.6	3.54	3930	10.6	183.4	2.93	932	13.7	79.1	1.26	326	15.1	30.6	0.49
60	68	4714	10.4	9.9	11.5	14.3	15.5	1.59	3.3	7.7	0.30	2.09	40.4	115	1.46	0.102	0.094	12.5	0.51	4676	5925	361	99	D	M	0.0511	240.8	3.56	3764	11.1	207.3	3.07	1251	13.9	114.0	1.69	517	15.4	52.6	0.78
65	73	4230	11.1	10.6	12.0	14.9	16.2	1.67	3.4	8.1	0.29	2.31	41.2	113	1.54	0.103	0.095	12.4	0.52	4661	5925	353	98	D	M	0.0609	257.6	3.55	3552	11.6	228.2	3.14	1466	14.2	145.4	2.00	714	15.6	78.4	1.08
70	78	3812	11.8	11.3	12.6	15.5	16.8	1.75	3.6	8.6	0.29	2.52	41.8	112	1.62	0.105	0.096	12.2	0.53	4632	5925	344	96	D	M	0.0715	272.4	3.51	3322	12.1	246.2	3.17	1618	14.6	174.2	2.25	895	15.9	105.6	1.36
75	83	3451	12.5	11.9	13.0	16.0	17.4	1.82	3.7	8.9	0.29	2.74	42.2	110	1.70	0.106	0.098	11.9	0.53	4593	5925	335	95	D	M	0.0826	285.2	3.45	3090	12.7	261.7	3.17	1711	14.9	199.7	2.42	1078	16.1	134.9	1.63
80	88	3137	13.1	12.6	13.5	16.5	17.9	1.89	3.9	9.3	0.29	2.97	42.4	109	1.79	0.108	0.100	11.7	0.53	4546	5925	326	93	D	M	0.0944	296.2	3.38	2870	13.2	274.9	3.14	1756	15.3	221.7	2.53	1190	16.4	160.2	1.83
85	93	2864	13.7	13.2	13.9	16.9	18.4	1.96	4.0	9.6	0.29	3.19	42.5	107	1.87	0.110	0.102	11.5	0.53	4494	5925	317	91	D	M	0.1067	305.7	3.30	2664	13.7	286.2	3.09	1763	15.7	240.5	2.60	1268	16.7	183.1	1.98
90	98	2625	14.3	13.8	14.3	17.4	18.8	2.03	4.1	10.0	0.29	3.42	42.4	106	1.95	0.112	0.104	11.2	0.53	4439	5925	308	90	D	M	0.1195	313.7	3.21	2471	14.3	295.8	3.03	1743	16.0	256.3	2.63	1315	17.0	203.5	2.09
95	103	2416	14.9	14.3	14.7	17.7	19.2	2.10	4.2	10.2	0.29	3.65	42.3	104	2.03	0.115	0.106	11.0	0.53	4383	5925	299	88	D	M	0.1327	320.5	3.12	2298	14.8	303.9	2.96	1707	16.4	269.6	2.63	1339	17.4	221.4	2.16
100	108	2231	15.5	14.9	15.1	18.1	19.6	2.16	4.4	10.5	0.29	3.88	42.2	103	2.12	0.117	0.108	10.7	0.53	4326	5925	291	87	D	M	0.1462	326.2	3.03	2138	15.3	310.6	2.89	1656	16.8	280.7	2.61	1341	17.7	236.8	2.20
105	113	2068	16.1	15.4	15.4	18.5	20.0	2.23	4.5	10.7	0.29	4.11	42.0	102	2.20	0.119	0.110	10.5	0.53	4269	5925	283	85	D	M	0.1600	330.9	2.94	1995	15.8	316.3	2.81	1599	17.2	289.8	2.57	1331	18.1	250.0	2.22
110	118	1924	16.6	16.0	15.7	18.8	20.3	2.29	4.6	11.0	0.29	4.34	41.7	101	2.28	0.121	0.112	10.2	0.52	4213	5925	275	83	D	M	0.1740	334.7	2.85	1865	16.3	321.0	2.73	1538	17.6	297.4	2.53	1309	18.4	261.2	2.22
115	123	1795	17.1	16.5	16.0	19.1	20.6	2.35	4.7	11.2	0.29	4.57	41.5	100	2.36	0.124	0.114	10.0	0.52	4159	5925	268	82	D	M	0.1882	337.9	2.76	1749	16.8	324.8	2.65	1478	18.0	303.6	2.48	1283	18.8	270.7	2.21
120	128	1680	17.7	17.0	16.3	19.4	20.9	2.41	4.8	11.3	0.30	4.80	41.2	98	2.44	0.126	0.117	9.8	0.51	4106	5925	261	81	D	M	0.2026	340.3	2.67	1641	17.3	327.9	2.57	1414	18.4	308.6	2.42	1247	19.1	278.8	2.19
125	133	1577	18.2	17.5	16.6	19.6	21.2	2.46	5.0	11.5	0.30	5.02	40.9	97	2.52	0.128	0.119	9.6	0.51	4055	5925	255	79	D	M	0.2170	342.2	2.58	1547	17.7	330.3	2.49	1357	18.8	312.7	2.36	1212	19.5	285.5	2.15
130	138	1484	18.7	18.0	16.8	19.9	21.4	2.52	5.1	11.7	0.30	5.25	40.6	96	2.60	0.131	0.121	9.4	0.51	4006	5925	248	78	D	M	0.2316	343.7	2.50	1457	18.2	332.2	2.41	1297	19.2	316.0	2.30	1173	19.8	291.1	2.12
135	143	1401	19.1	18.4	17.1	20.1	21.7	2.57	5.2	11.8	0.30	5.48	40.3	95	2.67	0.133	0.123	9.2	0.50	3959	5925	243	77	D	M	0.2460	344.7	2.42	1377	18.6	333.7	2.34	1241	19.6	318.6	2.23	1134	20.2	295.8	2.07
140	148	1325	19.6	18.9	17.3	20.3	21.9	2.63	5.3	11.9	0.30	5.70	40.0	94	2.75	0.135	0.125	9.0	0.50	3914	5925	237	76	D	M	0.2606	345.3	2.34	1306	19.1	334.7	2.27	1190	19.9	320.6	2.17	1096	20.5	299.6	2.03
145	153	1256	20.1	19.3	17.5	20.5	22.1	2.68	5.4	12.0	0.30	5.92	39.7	93	2.82	0.137	0.128	8.9	0.49	3871	5925	232	74	D	M	0.2752	345.6	2.26	1241	19.5	335.3	2.20	1141	20.3	322.1	2.11	1060	20.9	302.7	1.98
150	158	1194	20.5	19.8	17.7	20.7	22.3	2.73	5.5	12.1	0.31	6.14	39.4	92	2.89	0.139	0.130	8.7	0.49	3831	5925	227	73	D	M	0.2894	345.6	2.19	1182	19.9	335.7	2.13	1095	20.7	323.1	2.05	1024	21.2	305.3	1.94
155	163	1137	20.9	20.2	17.9	20.9	22.5	2.78	5.5	12.2	0.31	6.36	39.1	91	2.97	0.142	0.132	8.5	0.48	3792	5925	223	72	D	M	0.3039	345.5	2.12	1125	20.3	335.8	2.07	1050	21.1	323.8	1.99	987	21.6	307.3	1.89
160	168	1085	21.4	20.6	18.1	21.1	22.7	2.82	5.6	12.3	0.31	6.58	38.8	90	3.04	0.144	0.134	8.4	0.48	3756	5925	218	71	D	M	0.3181	345.1	2.06	1075	20.7	335.7	2.00	1010	21.4	324.2	1.93	955	21.9	308.8	1.84
165	173	1037	21.8	21.0	18.3	21.3	22.9	2.87	5.7	12.4	0.31	6.79	38.6	89	3.11	0.146	0.136	8.3	0.48	3722	5925	214	70	C	M	0.3322	344.5	2.00	1030	21.1	335.3	1.94	973	21.8	324.4	1.88	925	22.2	310.0	1.80
170	178	993	22.2	21.4	18.5	21.5	23.0	2.91	5.8	12.4	0.31	7.01	38.3	88	3.17	0.148	0.138	8.1	0.47	3690	5925	210	70	C	M	0.3462	343.8	1.94	984	21.5	334.8	1.89	934	22.1	324.3	1.83	888	22.6	310.6	1.75
175	183	953	22.6	21.8	18.6	21.6	23.2	2.96	5.9	12.5	0.32	7.22	38.1	87	3.24	0.150	0.140	8.0	0.47	3659	5925	207	69	C	M	0.3599	343.0	1.88	947	21.9	334.2	1.83	902	22.5	324.0	1.77	861	22.9	311.2	1.70
180	188	915	22.9	22.2	18.8	21.8	23.4	3.00	6.0	12.5	0.32	7.43	37.9	86	3.31	0.152	0.142	7.9	0.46	3631	5925	203	68	C	M	0.3739	342.1	1.82	910	22.3	333.5	1.78	870	22.8	323.6	1.73	834	23.2	311.6	1.66

Table A62. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
		SI = 14 m Initial Density = 20000 stems/ha																																						
5	13	19578	0.9	0.9	1.9	2.6	2.8	0.68	1.2	0.6	0.68	0.36	1.4	247	0.71	0.274	0.259	1.4	0.02	2418	7318	117	70	D	M	0.0001	1.3	0.10	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	18589	2.0	1.9	3.0	4.0	4.3	0.74	1.5	1.2	0.56	0.43	5.8	167	0.73	0.181	0.170	4.1	0.07	2997	7318	200	79	D	M	0.0005	8.7	0.49	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	17182	2.9	2.7	4.0	5.4	5.9	0.81	1.8	1.9	0.47	0.52	11.6	149	0.76	0.140	0.130	6.8	0.14	3557	7318	273	89	D	M	0.0014	23.8	1.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	15549	3.8	3.6	5.0	6.8	7.3	0.88	1.9	2.6	0.41	0.63	17.6	141	0.80	0.118	0.109	9.0	0.22	4047	7318	332	97	D	M	0.0029	45.7	1.66	21	8.0	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	13862	4.6	4.4	6.0	8.0	8.7	0.96	2.1	3.4	0.37	0.75	23.4	136	0.85	0.106	0.098	10.9	0.29	4441	7318	375	104	D	M	0.0052	72.4	2.22	420	8.0	5.4	0.17	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	38	12243	5.4	5.1	6.9	9.1	10.0	1.05	2.2	4.1	0.35	0.89	28.4	132	0.90	0.099	0.091	12.2	0.36	4738	7318	403	109	D	M	0.0083	101.4	2.70	1491	8.2	23.3	0.62	1	12.5	0.0	0.00	0	0.0	0.0	0.00
35	43	10762	6.2	5.9	7.7	10.2	11.1	1.13	2.4	4.7	0.33	1.03	32.6	129	0.96	0.095	0.087	13.1	0.41	4947	7318	420	111	D	M	0.0122	130.8	3.07	2651	8.5	51.7	1.21	11	12.6	0.7	0.02	0	0.0	0.0	0.00
40	48	9448	7.0	6.6	8.5	11.1	12.2	1.21	2.5	5.4	0.31	1.19	36.1	126	1.03	0.093	0.085	13.7	0.46	5083	7318	427	113	D	M	0.0169	159.2	3.34	3725	8.8	87.0	1.83	70	12.8	4.4	0.09	5	14.4	0.3	0.01
45	53	8304	7.7	7.3	9.2	12.0	13.1	1.29	2.7	6.0	0.30	1.36	38.8	124	1.10	0.092	0.084	14.0	0.49	5162	7318	427	113	D	M	0.0224	185.8	3.53	4260	9.2	121.7	2.31	218	13.0	15.1	0.29	27	14.6	2.1	0.04
50	58	7318	8.4	8.0	9.9	12.8	14.0	1.37	2.8	6.5	0.30	1.54	40.8	121	1.17	0.091	0.083	14.1	0.52	5195	7318	423	113	D	M	0.0287	210.1	3.65	4479	9.7	154.3	2.68	463	13.2	34.7	0.60	92	14.7	7.7	0.13
55	63	6474	9.1	8.7	10.5	13.5	14.8	1.44	2.9	7.0	0.29	1.72	42.4	119	1.24	0.092	0.084	14.0	0.54	5195	7318	415	111	D	M	0.0358	232.0	3.71	4474	10.1	183.7	2.93	763	13.4	61.8	0.99	212	14.9	19.2	0.31
60	68	5752	9.8	9.3	11.1	14.2	15.5	1.52	3.1	7.5	0.29	1.91	43.5	117	1.32	0.093	0.085	13.9	0.55	5170	7318	406	110	D	M	0.0437	251.5	3.72	4333	10.6	209.5	3.10	1119	13.6	96.3	1.42	382	15.1	37.0	0.55
65	73	5135	10.5	10.0	11.6	14.8	16.2	1.60	3.2	7.9	0.28	2.10	44.3	116	1.40	0.094	0.086	13.7	0.56	5127	7318	396	108	D	M	0.0523	268.5	3.70	4118	11.1	231.9	3.19	1387	13.9	129.0	1.78	578	15.4	60.0	0.83
70	78	4606	11.1	10.6	12.1	15.3	16.8	1.67	3.4	8.3	0.28	2.30	44.8	114	1.47	0.096	0.088	13.4	0.57	5072	7318	384	106	D	M	0.0615	283.4	3.65	3867	11.6	251.2	3.24	1593	14.2	160.1	2.06	774	15.6	86.1	1.11
75	83	4151	11.8	11.2	12.6	15.9	17.4	1.74	3.5	8.7	0.28	2.51	45.1	112	1.55	0.098	0.089	13.2	0.57	5008	7318	373	104	D	M	0.0714	296.3	3.59	3610	12.1	267.6	3.24	1738	14.5	188.3	2.28	988	15.8	116.0	1.40
80	88	3759	12.4	11.8	13.0	16.3	17.9	1.81	3.6	9.1	0.28	2.71	45.2	111	1.63	0.100	0.091	12.9	0.57	4939	7318	361	102	D	M	0.0818	307.3	3.51	3355	12.6	281.6	3.21	1825	14.9	213.2	2.43	1135	16.1	142.6	1.63
85	93	3419	13.0	12.4	13.5	16.8	18.4	1.88	3.7	9.4	0.28	2.92	45.2	109	1.71	0.102	0.093	12.6	0.57	4866	7318	350	100	D	M	0.0927	316.8	3.42	3114	13.1	293.5	3.17	1867	15.2	234.5	2.53	1247	16.3	167.4	1.81
90	98	3123	13.6	13.0	13.8	17.2	18.8	1.94	3.9	9.7	0.28	3.13	45.1	108	1.79	0.104	0.095	12.3	0.57	4792	7318	340	98	D	M	0.1040	324.8	3.33	2888	13.6	303.5	3.11	1872	15.5	252.7	2.59	1325	16.6	190.0	1.95
95	103	2864	14.1	13.5	14.2	17.6	19.2	2.01	4.0	10.0	0.28	3.34	44.9	107	1.87	0.106	0.097	12.0	0.57	4718	7318	329	96	D	M	0.1157	331.5	3.23	2684	14.1	311.9	3.04	1854	15.9	267.9	2.61	1376	16.9	210.0	2.05
100	108	2637	14.7	14.1	14.6	18.0	19.6	2.07	4.1	10.2	0.28	3.55	44.7	105	1.95	0.108	0.099	11.7	0.56	4644	7318	319	94	D	M	0.1278	337.1	3.13	2497	14.6	319.0	2.96	1816	16.3	280.7	2.61	1402	17.2	227.6	2.12
105	113	2437	15.2	14.6	14.9	18.3	20.0	2.13	4.2	10.5	0.28	3.77	44.4	104	2.03	0.111	0.101	11.4	0.56	4572	7318	310	92	D	M	0.1402	341.7	3.03	2327	15.0	324.8	2.88	1766	16.6	291.2	2.59	1410	17.6	242.7	2.16
110	118	2260	15.8	15.1	15.2	18.6	20.3	2.19	4.4	10.7	0.29	3.98	44.1	103	2.10	0.113	0.104	11.1	0.55	4502	7318	301	90	D	M	0.1528	345.4	2.94	2174	15.5	329.6	2.80	1709	17.0	299.9	2.55	1402	17.9	255.7	2.17
115	123	2103	16.3	15.6	15.5	18.9	20.6	2.25	4.5	10.9	0.29	4.19	43.7	102	2.18	0.115	0.106	10.8	0.55	4434	7318	292	88	D	M	0.1657	348.4	2.84	2033	16.0	333.5	2.72	1647	17.4	307.0	2.50	1382	18.2	266.8	2.18
120	128	1963	16.8	16.1	15.8	19.2	20.9	2.31	4.6	11.1	0.29	4.40	43.4	100	2.26	0.118	0.108	10.6	0.54	4368	7318	284	86	D	M	0.1787	350.7	2.75	1906	16.4	336.6	2.64	1583	17.7	312.8	2.45	1354	18.5	276.2	2.16
125	133	1838	17.3	16.6	16.0	19.4	21.2	2.36	4.7	11.3	0.29	4.62	43.0	99	2.33	0.120	0.110	10.3	0.54	4305	7318	277	85	D	M	0.1918	352.5	2.66	1793	16.9	339.0	2.56	1521	18.1	317.5	2.39	1324	18.9	284.1	2.14
130	138	1725	17.7	17.1	16.3	19.7	21.4	2.42	4.8	11.4	0.29	4.83	42.6	98	2.41	0.122	0.112	10.1	0.53	4245	7318	270	83	D	M	0.2050	353.7	2.57	1687	17.3	340.9	2.48	1457	18.5	321.3	2.34	1287	19.2	290.7	2.11
135	143	1624	18.2	17.5	16.5	19.9	21.7	2.47	4.9	11.6	0.29	5.04	42.2	97	2.48	0.125	0.114	9.9	0.53	4187	7318	263	82	D	M	0.2183	354.5	2.49	1592	17.8	342.2	2.40	1397	18.8	324.2	2.27	1250	19.5	296.3	2.08
140	148	1532	18.7	18.0	16.7	20.1	21.9	2.52	5.0	11.7	0.30	5.25	41.9	96	2.55	0.127	0.117	9.7	0.52	4132	7318	256	80	D	M	0.2317	354.9	2.40	1505	18.2	343.2	2.33	1339	19.2	326.4	2.21	1211	19.8	300.8	2.04
145	153	1449	19.1	18.4	16.9	20.4	22.1	2.57	5.1	11.8	0.30	5.46	41.5	95	2.63	0.129	0.119	9.5	0.52	4080	7318	250	79	D	M	0.2451	355.1	2.33	1426	18.6	343.7	2.25	1284	19.5	328.1	2.15	1172	20.2	304.5	2.00
150	158	1374	19.5	18.8	17.1	20.6	22.3	2.62	5.2	11.9	0.30	5.67	41.2	94	2.70	0.131	0.121	9.3	0.51	4030	7318	245	78	D	M	0.2583	354.9	2.25	1356	19.0	343.9	2.18	1232	19.9	329.3	2.09	1134	20.5	307.5	1.95
155	163	1305	20.0	19.2	17.3	20.7	22.5	2.67	5.3	12.0	0.30	5.87	40.8	93	2.77	0.133	0.123	9.1	0.51	3983	7318	239	77	D	M	0.2716	354.5	2.18	1290	19.4	343.9	2.12	1183	20.2	330.1	2.03	1097	20.8	309.9	1.91
160	168	1243	20.4	19.6	17.5	20.9	22.7	2.71	5.4	12.1	0.30	6.08	40.5	92	2.84	0.136	0.125	9.0	0.50	3938	7318	234	76	D	M	0.2847	353.9	2.11	1230	19.8	343.6	2.05	1137	20.6	330.5	1.97	1061	21.1	311.8	1.86
165	173	1185	20.8	20.0	17.7	21.1	22.9	2.76	5.5	12.2	0.31	6.28	40.2	91	2.90	0.138	0.127	8.8	0.50	3896	7318	230	74	D	M	0.2980	353.1	2.05	1173	20.2	343.1	1.99	1090	20.9	330.6	1.92	1023	21.5	313.3	1.82
170	178	1133	21.2	20.4	17.8	21.3	23.0	2.80	5.5	12.2	0.31	6.48	39.9	90	2.97	0.140	0.129	8.7	0.49	3856	7318	225	73	D	M	0.3108	352.1	1.98	1121	20.6	342.4	1.93	1049	21.3	330.5	1.86	986	21.8	314.0	1.77
175	183	1084	21.6	20.8	18.0	21.4	23.2	2.84	5.6	12.3	0.31	6.69	39.6	89	3.04	0.142	0.131	8.5	0.49	3818	7318	221	72	D	M	0.3239	351.1	1.92	1074	20.9	341.6	1.87	1012	21.6	330.2	1.81	955	22.1	314.8	1.72
180	188	1040	21.9	21.2	18.2	21.6	23.4	2.89	5.7	12.3	0.31	6.88	39.3	88	3.10	0.144	0.133	8.4	0.48	3783	7318	217	72	D	M	0.3364	349.9	1.87	1032	21.3	340.6	1.82	977	21.9	329.6	1.76	926	22.4	315.2	1.68
		SI = 14 m Initial Density = 30000 stems/ha																																						
5	13	29282	0.8	0.7	1.9	2.6	2.8	0.67	1.1	0.6	0.65	0.35	1.5	282	0.58	0.225	0.212	1.7	0.02	3507	9890	160	103	D	M	0.0000	1.4	0.11	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	27599	1.8	1.6	2.9	4.0	4.3	0.72	1.4	1.2	0.53	0.41	6.7	181	0.60	0.150	0.139	5.0	0.09	4184	9890	264	113	D	M	0.0003	9.6	0.55	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	25234	2.6	2.4	3.8	5.4	5.9	0.78	1.6	1.9	0.45	0.48	13.4	159	0.63	0.116	0.107	8.3	0.17	4795	9890	354	122	D	M	0.0010	26.2	1.16	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	22542	3.4	3.2	4.8	6.7	7.3	0.85	1.7	2.6	0.39	0.57	20.4	149	0.67	0.099	0.091	11.1	0.26	5288	9890	423	129	D	M	0.0022	50.1	1.82	3	7.9	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	19824	4.2	3.9	5.7	7.9	8.7	0.92	1.9	3.3	0.35	0.68	26.9	142	0.71	0.089	0.082	13.2	0.34	5652	9890	471	134	D	M	0.0040	78.7	2.41	165	7.9	2.0	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	38	17276	4.9	4.6	6.5	9.1	10.0	0.99	2.0	3.9	0.33	0.79	32.4	138	0.76	0.084	0.076	14.7	0.42	5895	9890	500	137	D	M	0.0063	109.5	2.91	963	8.0	13.4	0.36	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	43	14998	5.6	5.3	7.3	10.1	11.1	1.06	2.1	4.6	0.31	0.92	37.0	134	0.82	0.081	0.073	15.6	0.48	6040	9890	514	138	D	M	0.0094	140.3	3.29	2189	8.3	37.4	0.88	1	12.5	0.1	0.00	0	0.0	0.0	0.00
40	48	13017	6.3	6.0	8.0	11.0	12.2	1.14	2.3	5.1	0.30	1.05	40.6	131	0.88	0.080	0.072	16.2	0.53	6108	9890	517	137	D	M	0.0130	169.7	3.57	3611	8.5	72.2	1.52	17	12.6	1.1	0.02	0	0.0	0.0	0.00
45	53	11325	7.0	6.6	8.7	11.9	13.1	1.21	2.4	5.7	0.29	1.20	43.4	128	0.94	0.079	0.072	16.4	0.56	6118	9890	513	136	D	M	0.0174	197.1	3.75	4502	8.8	108.7	2.07	84	12.8	5.5	0.10	6	14.4	0.4	0.01
50	58	9890	7.7	7.3	9.3	12.6	14.0	1.28	2.5	6.2	0.28	1.35	45.5	125	1.01	0.080	0.072	16.5	0.59	6088	9890	504	133	D	M	0.0224	221.9	3.85	5000	9.2	144.3	2.51	236	13.0	16.8	0.29	27	14.6	2.2	0.04
55	63	8679	8.3	7.9	9.9	13.4	14.8	1.35	2.7	6.7	0.28	1.51	47.0	123	1.07	0.080	0.073	16.3	0.61	6028	9890	492	131	D	M	0.0281	244.1	3.90	5182	9.6	176.9	2.83	477	13.2	36.3	0.58	87	14.7	7.5	0.12
60	68	7656	8.9	8.5	10.5	14.0	15.5	1.42	2.8	7.1	0.28	1.67	48.1	121	1.14	0.082	0.074	16.1	0.62	5949	9890	478	128	D	M	0.0345	263.8	3.90	5145	10.0	205.7	3.04	823	13.3	65.9	0.97	196	14.9	17.9	0.26
65	73	6790	9.6	9.1	11.0	14.6	16.2	1.49	2.9	7.5	0.27	1.84	48.8	119	1.21	0.083	0.075	15.8	0.63	5856	9890	463	125	D	M	0.0414	280.9	3.87	4973	10.4	230.7	3.18	1135	13.5	97.2	1.34	352	15.1	34.2	0.47
70	78	6054	10.2	9.7	11.4	15.2	16.8	1.56	3.0	7.9	0.27	2.01	49.1	117	1.29	0.085	0.076	15.4	0.63	5756	9890	448	122	D	M	0.0489	295.8	3.81	4725	10.9	252.0	3.25	1413	13.8	129.5	1.67	537	15.2	55.4	0.71
75	83	5427	10.8	10.3	11.9	15.7	17.4	1.63	3.2	8.3	0.27	2.19	49.3	116	1.36	0.087	0.078	15.0	0.63	5651	9890	433	119	D	M	0.0569	308.7	3.74	4445	11.3	270.2	3.27	1638	14.0	160.5	1.94	768	15.4	82.6	1.00
80	88	4889	11.3	10.8	12.3	16.1	17.9	1.69	3.3	8.7	0.27	2.37	49.3	114	1.43	0.089	0.080	14.6	0.63	5544	9890	418	116	D	M	0.0654	319.7	3.65	4155	11.7	285.6	3.26	1806	14.3	189.0	2.16	953	15.6	108.8	1.24
85	93	4426	11.9	11.4	12.7	16.6	18.4	1.75	3.4	9.0	0.27	2.55	49.2	113	1.50	0.091	0.082	14.3	0.63	5438	9890	403	113	D	M	0.0744	329.1	3.55	3872	12.2	298.5	3.22	1917	14.6	214.3	2.31	1113	15.8	134.8	1.46
90	98	4025	12.4	11.9	13.1	17.0	18.8	1.82	3.5	9.3	0.27	2.73	48.9	111	1.58	0.093	0.084	13.9	0.63	5332	9890	390	110	D	M	0.0837	337.0	3.45	3599	12.6	309.4	3.17	1980	14.9	236.3	2.42	1241	16.1	159.6	1.64
95	103	3677	13.0	12.4	13.4	17.4	19.2	1.88	3.7	9.5	0.27	2.92	48.6	110	1.65	0.095	0.086	13.5	0.62	5229	9890	377	107	D	M	0.0934	343.6	3.35	3349	13.1	318.6	3.11	2007	15.2	255.0	2.49	1340	16.3	182.4	1.78
100	108	3372	13.5	12.9	13.7	17.7	19.6	1.94	3.8	9.8	0.27	3.10	48.3	108	1.72	0.097	0.088	13.1	0.62	5129	9890	364	105	D	M	0.1035	349.1	3.24	3116	13.5	326.1	3.03	2003	15.5	270.9	2.52	1410	16.6	203.0	1.89
105	113	3105	14.0	13.4	14.0	18.0	20.0	1.99	3.9	10.0	0.28	3.29	47.8	107	1.79	0.099	0.090	12.8	0.61	5033	9890	352	102	D	M	0.1138	353.5	3.14	2903	14.0	332.4	2.95	1977	15.8	284.1	2.52	1454	16.9	221.2	1.96
110	118	2869	14.5	13.9	14.3	18.4	20.3	2.05	4.0	10.3	0.28	3.48	47.4	106	1.87	0.102	0.092	12.4	0.60	4939	9890	341	100	D	M	0.1245	357.1	3.04	2707	14.4	337.5	2.87	1936	16.1	295.1	2.51	1477	17.1	237.2	2.02
115	123	2660	15.0	14.4	14.6	18.6	20.6	2.10	4.1	10.5	0.28	3.67	46.9	105	1.94	0.104	0.094	12.1	0.59	4850	9890	331	98	D	M	0.1353	360.0	2.94	2528	14.8	341.6	2.79	1882	16.5	304.2	2.48	1481	17.4	251.0	2.05
120	128	2474	15.5	14.8	14.9	18.9	20.9	2.16	4.2	10.7	0.28	3.86	46.5	103	2.01	0.106	0.096	11.8	0.59	4765	9890	321	95	D	M	0.1464	362.1	2.84	2368	15.2	344.9	2.70	1825	16.8	311.7	2.44	1474	17.7	262.9	2.06
125	133	2309	15.9	15.3	15.1	19.2	21.2	2.21	4.3	10.8	0.28	4.05	46.0	102	2.08	0.109	0.098	11.5	0.58	4683	9890	312	93	D	M	0.1575	363.7	2.74	2222	15.7	347.5	2.62	1762	17.1	317.7	2.40	1457	18.0	273.1	2.06
130	138	2160	16.4	15.7	15.3	19.4	21.4	2.26	4.4	11.0	0.28	4.24	45.5	101	2.15	0.111	0.100	11.2	0.57	4605	9890	303	92	D	M	0.1688	364.7	2.65	2088	16.1	349.4	2.54	1699	17.4	322.6	2.34	1432	18.3	281.7	2.05
135	143	2027	16.8	16.2	15.6	19.6	21.7	2.31	4.5	11.2	0.29	4.43	45.1	100	2.22	0.113	0.102	11.0	0.57	4531	9890	295	90	D	M	0.1802	365.3	2.56	1966	16.5	350.8	2.46	1634	17.8	326.4	2.29	1400	18.6	288.9	2.03
140	148	1907	17.3	16.6	15.8	19.9	21.9	2.36	4.6	11.3	0.29	4.62	44.6	99	2.29	0.115	0.104	10.7	0.56	4460	9890	287	88	D	M	0.1917	365.6	2.48	1855	16.9	351.7	2.38	1571	18.1	329.4	2.23	1366	18.9	295.0	2.00
145	153	1798	17.7	17.0	16.0	20.1	22.1	2.41	4.7	11.4	0.29	4.80	44.1	98	2.36	0.118	0.107	10.5	0.55	4393	9890	280	86	D	M	0.2033	365.5	2.40	1755	17.3	352.2	2.31	1510	18.4	331.7	2.17	1331	19.2	300.0	1.97
150	158	1699	18.1	17.4	16.2	20.3	22.3	2.45	4.8	11.5	0.29	4.99	43.7	97	2.43	0.120	0.109	10.3	0.54	4330	9890	273	85	D	M	0.2149	365.1	2.32	1663	17.7	352.3	2.24	1451	18.8	333.4	2.12	1294	19.5	304.2	1.93
155	163	1609	18.5	17.8	16.3	20.4	22.5	2.50	4.9	11.6	0.29	5.18	43.3	96	2.49	0.122	0.111	10.1	0.54	4269	9890	266	83	D	M	0.2265	364.4	2.24	1581	18.0	352.1	2.17	1397	19.1	334.5	2.06	1258	19.7	307.6	1.89
160	168	1527	18.9	18.2	16.5	20.6	22.7	2.55	5.0	11.7	0.30	5.36	42.9	95	2.56	0.124	0.113	9.9	0.53	4212	9890	260	82	D	M	0.2380	363.5	2.17	1500	18.4	351.7	2.10	1341	19.4	335.2	2.00	1217	20.0	310.3	1.85
165	173	1453	19.3	18.6	16.7	20.8	22.9	2.59	5.1	11.8	0.30	5.55	42.5	94	2.62	0.126	0.115	9.7	0.53	4158	9890	254	81	D	M	0.2495	362.5	2.10	1428	18.8	351.1	2.03	1288	19.7	335.6	1.94	1180	20.3	312.4	1.81
170	178	1384	19.7	18.9	16.8	20.9	23.0	2.63	5.2	11.9	0.30	5.73	42.1	93	2.69	0.128	0.117	9.5	0.52	4106	9890	249	79	D	M	0.2611	361.3	2.03	1361	19.1	350.2	1.97	1240	20.0	335.6	1.89	1137	20.7	313.6	1.77
175	183	1321	20.0	19.3	17.0	21.1	23.2	2.67	5.2	11.9	0.30	5.92	41.7	92	2.75	0.130	0.119	9.3	0.51	4057	9890	244	78	D	M	0.2725	360.0	1.97	1304	19.5	349.2	1.91	1196	20.3	335.3	1.84	1104	20.9	314.9	1.72
180	188	1263	20.4	19.7	17.1	21.2	23.4	2.71	5.3	12.0	0.30	6.10	41.3	91	2.81	0.133	0.120	9.1	0.51	4011	9890	239	77	D	M	0.2838	358.5	1.91	1246	19.8	348.1	1.86	1152	20.6	334.8	1.78	1069	21.2	315.7	1.68

Table A63. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																										Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 14 m Initial Density = 50000 stems/ha																																								
5	13	48625	0.6	0.6	1.8	2.6	2.8	0.66	1.0	0.6	0.61	0.35	1.6	342	0.45	0.176	0.164	2.0	0.03	5623	14548	238	168	D	M	0.0000	1.4	0.11	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	45401	1.5	1.4	2.7	4.0	4.3	0.70	1.2	1.2	0.49	0.39	7.8	202	0.47	0.118	0.109	6.4	0.11	6413	14548	374	177	D	M	0.0002	10.5	0.60	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	40941	2.2	2.1	3.6	5.4	5.9	0.75	1.4	1.8	0.41	0.45	15.9	173	0.49	0.092	0.084	10.7	0.21	7031	14548	489	183	D	M	0.0007	28.8	1.27	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	35986	2.9	2.7	4.4	6.7	7.3	0.81	1.5	2.5	0.36	0.52	24.1	160	0.53	0.079	0.072	14.1	0.32	7452	14548	571	186	D	M	0.0015	54.8	1.99	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	31123	3.6	3.4	5.3	7.9	8.7	0.87	1.6	3.1	0.33	0.60	31.5	152	0.57	0.072	0.065	16.6	0.42	7691	14548	623	186	D	M	0.0027	85.3	2.62	22	7.7	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	38	26694	4.2	4.0	6.0	8.9	10.0	0.93	1.7	3.7	0.31	0.69	37.7	146	0.61	0.068	0.061	18.3	0.50	7787	14548	650	184	D	M	0.0044	117.5	3.13	338	7.8	4.1	0.11	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	43	22837	4.9	4.6	6.7	9.9	11.1	0.99	1.8	4.3	0.29	0.79	42.7	141	0.66	0.067	0.060	19.3	0.56	7779	14548	659	181	D	M	0.0065	149.3	3.51	1232	8.0	18.0	0.42	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	48	19565	5.5	5.2	7.4	10.9	12.2	1.05	2.0	4.8	0.28	0.90	46.5	137	0.71	0.066	0.059	19.8	0.61	7701	14548	655	176	D	M	0.0092	179.4	3.77	2765	8.1	45.9	0.96	1	12.5	0.1	0.00	0	0.0	0.0	0.00
45	53	16827	6.1	5.8	8.0	11.7	13.1	1.12	2.1	5.3	0.28	1.01	49.4	134	0.77	0.066	0.059	20.0	0.65	7578	14548	643	171	D	M	0.0123	206.9	3.93	4085	8.4	80.3	1.53	12	12.6	0.7	0.01	0	0.0	0.0	0.00
50	58	14548	6.7	6.3	8.6	12.5	14.0	1.18	2.2	5.8	0.27	1.14	51.4	131	0.83	0.067	0.059	19.8	0.68	7427	14548	625	165	D	M	0.0159	231.7	4.02	5073	8.7	117.3	2.04	55	12.7	3.7	0.06	2	14.4	0.2	0.00
55	63	12652	7.3	6.9	9.1	13.1	14.8	1.24	2.3	6.2	0.27	1.26	52.8	128	0.89	0.068	0.060	19.6	0.70	7261	14548	605	160	D	M	0.0201	253.7	4.05	5672	9.0	153.0	2.44	165	12.9	11.7	0.19	14	14.5	1.1	0.02
60	68	11073	7.9	7.5	9.6	13.8	15.5	1.30	2.4	6.6	0.27	1.40	53.7	126	0.95	0.069	0.061	19.2	0.71	7086	14548	584	155	D	M	0.0247	273.0	4.04	5937	9.3	185.5	2.74	387	12.9	28.6	0.42	48	14.6	4.1	0.06
65	73	9751	8.4	8.0	10.0	14.4	16.2	1.37	2.6	7.0	0.26	1.53	54.3	124	1.01	0.070	0.063	18.7	0.71	6910	14548	562	150	D	M	0.0297	289.9	3.99	5959	9.7	214.1	2.95	652	13.1	50.9	0.70	118	14.7	10.6	0.15
70	78	8640	9.0	8.5	10.5	14.9	16.8	1.43	2.7	7.4	0.26	1.67	54.5	122	1.08	0.072	0.064	18.2	0.71	6735	14548	541	145	D	M	0.0352	304.5	3.92	5820	10.0	238.8	3.08	945	13.3	78.0	1.01	228	14.9	21.6	0.28
75	83	7699	9.5	9.0	10.9	15.4	17.4	1.48	2.8	7.7	0.26	1.82	54.5	120	1.14	0.074	0.066	17.7	0.71	6563	14548	520	140	D	M	0.0412	317.0	3.84	5586	10.4	259.8	3.15	1234	13.5	107.6	1.30	404	15.0	39.3	0.48
80	88	6900	10.0	9.5	11.2	15.9	17.9	1.54	2.9	8.0	0.26	1.97	54.3	118	1.20	0.076	0.067	17.2	0.71	6397	14548	500	136	D	M	0.0475	327.8	3.74	5300	10.8	277.5	3.17	1492	13.7	137.4	1.57	579	15.1	59.2	0.68
85	93	6215	10.5	10.0	11.6	16.3	18.4	1.60	3.0	8.3	0.26	2.12	54.0	117	1.27	0.078	0.069	16.7	0.70	6237	14548	481	131	D	M	0.0542	336.9	3.64	4992	11.1	292.5	3.16	1705	13.9	166.0	1.79	760	15.3	81.6	0.88
90	98	5626	11.0	10.5	11.9	16.7	18.8	1.65	3.1	8.6	0.26	2.27	53.6	115	1.33	0.080	0.071	16.2	0.69	6084	14548	463	128	D	M	0.0612	344.5	3.53	4679	11.5	305.0	3.13	1867	14.2	192.2	1.97	929	15.5	105.1	1.08
95	103	5116	11.5	11.0	12.2	17.0	19.2	1.71	3.2	8.9	0.26	2.42	53.1	114	1.40	0.082	0.073	15.7	0.69	5937	14548	446	124	D	M	0.0686	350.9	3.42	4378	11.9	315.4	3.07	1985	14.4	215.6	2.10	1083	15.7	128.6	1.25
100	108	4672	12.0	11.4	12.5	17.4	19.6	1.76	3.4	9.1	0.27	2.57	52.6	112	1.46	0.084	0.075	15.2	0.68	5797	14548	429	120	D	M	0.0762	356.2	3.31	4091	12.3	324.1	3.01	2060	14.7	236.1	2.19	1214	15.9	151.2	1.41
105	113	4284	12.4	11.9	12.8	17.7	20.0	1.81	3.5	9.3	0.27	2.73	52.0	111	1.53	0.086	0.077	14.8	0.67	5664	14548	414	117	D	M	0.0842	360.5	3.20	3823	12.6	331.3	2.94	2101	14.9	253.8	2.25	1321	16.1	172.3	1.53
110	118	3943	12.9	12.3	13.1	18.0	20.3	1.87	3.6	9.6	0.27	2.89	51.4	110	1.59	0.088	0.078	14.3	0.66	5538	14548	400	114	D	M	0.0923	363.9	3.09	3574	13.0	337.2	2.87	2112	15.2	269.0	2.29	1401	16.3	191.7	1.63
115	123	3643	13.3	12.7	13.3	18.3	20.6	1.92	3.7	9.8	0.27	3.04	50.8	108	1.66	0.091	0.080	13.9	0.65	5417	14548	387	111	D	M	0.1006	366.6	2.99	3343	13.4	341.9	2.79	2101	15.4	281.7	2.30	1459	16.5	209.2	1.71
120	128	3376	13.8	13.2	13.5	18.5	20.9	1.96	3.8	10.0	0.27	3.20	50.2	107	1.72	0.093	0.082	13.5	0.64	5303	14548	374	108	D	M	0.1092	368.6	2.89	3132	13.8	345.7	2.71	2073	15.7	292.4	2.29	1497	16.8	224.7	1.76
125	133	3138	14.2	13.6	13.8	18.8	21.2	2.01	3.9	10.1	0.27	3.36	49.6	106	1.79	0.095	0.084	13.2	0.63	5195	14548	362	105	D	M	0.1179	370.0	2.79	2936	14.1	348.7	2.63	2033	16.0	301.3	2.27	1518	17.0	238.4	1.80
130	138	2926	14.6	14.0	14.0	19.0	21.4	2.06	4.0	10.3	0.28	3.52	49.0	105	1.85	0.097	0.086	12.8	0.62	5092	14548	351	103	D	M	0.1268	371.0	2.70	2760	14.5	351.0	2.55	1986	16.2	308.6	2.24	1527	17.2	250.3	1.82
135	143	2736	15.0	14.4	14.2	19.2	21.7	2.11	4.1	10.4	0.28	3.68	48.4	104	1.91	0.099	0.088	12.5	0.61	4995	14548	341	101	D	M	0.1357	371.4	2.60	2597	14.8	352.7	2.47	1932	16.5	314.6	2.21	1523	17.5	260.7	1.83
140	148	2565	15.4	14.8	14.4	19.4	21.9	2.15	4.2	10.6	0.28	3.84	47.9	103	1.97	0.102	0.090	12.2	0.60	4902	14548	331	98	D	M	0.1448	371.5	2.52	2448	15.2	353.8	2.40	1873	16.8	319.5	2.16	1510	17.7	269.6	1.83
145	153	2410	15.8	15.2	14.5	19.6	22.1	2.19	4.3	10.7	0.28	4.00	47.3	102	2.04	0.104	0.092	11.9	0.60	4815	14548	322	96	D	M	0.1541	371.3	2.43	2312	15.6	354.5	2.32	1814	17.1	323.3	2.12	1491	18.0	277.2	1.82
150	158	2270	16.2	15.5	14.7	19.8	22.3	2.24	4.3	10.8	0.28	4.16	46.7	100	2.10	0.106	0.094	11.6	0.59	4731	14548	313	94	D	M	0.1633	370.7	2.35	2187	15.9	354.7	2.25	1754	17.3	326.4	2.07	1467	18.2	283.7	1.80
155	163	2143	16.6	15.9	14.9	20.0	22.5	2.28	4.4	10.9	0.28	4.32	46.2	99	2.16	0.108	0.096	11.4	0.58	4653	14548	305	92	D	M	0.1726	369.9	2.27	2072	16.2	354.7	2.18	1695	17.6	328.7	2.02	1439	18.5	289.1	1.78
160	168	2028	16.9	16.3	15.0	20.2	22.7	2.32	4.5	11.0	0.29	4.47	45.7	98	2.22	0.110	0.098	11.1	0.57	4578	14548	297	91	D	M	0.1819	368.9	2.20	1966	16.6	354.3	2.11	1636	17.9	330.3	1.97	1407	18.7	293.7	1.75
165	173	1922	17.3	16.6	15.2	20.3	22.9	2.36	4.6	11.1	0.29	4.63	45.2	97	2.28	0.112	0.100	10.9	0.56	4507	14548	290	89	D	M	0.1913	367.6	2.13	1866	16.9	353.7	2.05	1579	18.2	331.5	1.92	1375	18.9	297.5	1.72
170	178	1825	17.7	17.0	15.3	20.5	23.0	2.40	4.7	11.2	0.29	4.79	44.7	96	2.34	0.114	0.102	10.6	0.55	4440	14548	283	87	D	M	0.2007	366.3	2.06	1778	17.3	352.8	1.99	1525	18.4	332.2	1.87	1330	19.2	299.8	1.69
175	183	1736	18.0	17.3	15.5	20.6	23.2	2.44	4.8	11.3	0.29	4.95	44.2	95	2.40	0.116	0.103	10.4	0.55	4376	14548	277	86	D	M	0.2101	364.8	2.00	1694	17.6	351.8	1.93	1470	18.7	332.5	1.82	1295	19.5	302.4	1.66
180	188	1655	18.4	17.6	15.6	20.8	23.4	2.48	4.8	11.3	0.30	5.11	43.8	95	2.46	0.118	0.105	10.2	0.54	4315	14548	270	84	D	M	0.2194	363.1	1.94	1618	17.9	350.6	1.87	1420	19.0	332.5	1.77	1263	19.7	304.4	1.62
SI = 14 m Initial Density = 80000 stems/ha																																								
5	13	77540	0.5	0.5	1.6	2.6	2.8	0.66	0.9	0.7	0.58	0.34	1.5	424	0.36	0.140	0.130	2.2	0.03	8712	20880	344	265	D	M	0.0000	1.3	0.10	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	18	71771	1.2	1.2	2.5	4.0	4.3	0.69	1.1	1.2	0.46	0.37	8.8	227	0.37	0.094	0.086	7.8	0.12	9565	20880	518	269	D	M	0.0002	11.0	0.63	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	23	63904	1.9	1.8	3.3	5.3	5.9	0.73	1.2	1.8	0.39	0.42	18.1	189	0.40	0.074	0.067	13.2	0.25	10081	20880	656	268	D	M	0.0005	30.6	1.35	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	28	55356	2.5	2.4	4.1	6.6	7.3	0.77	1.3	2.4	0.34	0.48	27.5	172	0.43	0.064	0.058	17.4	0.37	10294	20880	750	263	D	M	0.0010	57.9	2.10	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	33	47174	3.1	2.9	4.8	7.8	8.7	0.82	1.4	2.9	0.31	0.54	35.8	162	0.46	0.059	0.053	20.3	0.49	10278	20880	803	254	D	M	0.0019	89.5	2.75	1	7.6	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	38	39907	3.7	3.5	5.5	8.8	10.0	0.87	1.5	3.5	0.29	0.61	42.6	154	0.50	0.057	0.050	22.2	0.58	10112	20880	824	244	D	M	0.0031	122.2	3.25	59	7.7	0.7	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	43	33722	4.2	4.0	6.1	9.8	11.1	0.93	1.6	4.0	0.28	0.69	47.8	148	0.54	0.055	0.049	23.2	0.65	9860	20880	823	233	D	M	0.0046	154.0	3.62	431	7.8	5.6	0.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	48	28580	4.8	4.5	6.7	10.7	12.2	0.98	1.7	4.4	0.27	0.78	51.8	144	0.59	0.055	0.049	23.6	0.70	9562	20880	809	222	D	M	0.0064	183.6	3.86	1517	7.9	21.5	0.45	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	53	24349	5.3	5.0	7.3	11.5	13.1	1.04	1.8	4.9	0.27	0.87	54.6	140	0.64	0.056	0.049	23.6	0.73	9247	20880	786	212	D	M	0.0086	210.4	4.00	2872	8.1	47.2	0.90	1	12.4	0.0	0.00	0	0.0	0.0	0.00
50	58	20880	5.9	5.5	7.8	12.3	14.0	1.09	1.9	5.3	0.26	0.97	56.6	136	0.69	0.056	0.049	23.3	0.76	8930	20880	758	202	D	M	0.0112	234.4	4.07	4209	8.3	79.9	1.39	6	12.5	0.4	0.01	0	0.0	0.0	0.00
55	63	18031	6.4	6.0	8.2	13.0	14.8	1.15	2.0	5.7	0.26	1.07	57.8	133	0.74	0.057	0.050	22.9	0.77	8620	20880	729	193	D	M	0.0142	255.6	4.08	5275	8.5	115.0	1.84	30	12.6	2.0	0.03	1	14.3	0.1	0.00
60	68	15681	6.9	6.5	8.7	13.6	15.5	1.20	2.1	6.0	0.26	1.18	58.6	130	0.80	0.059	0.051	22.3	0.78	8322	20880	699	185	D	M	0.0175	274.0	4.05	5991	8.8	149.2	2.21	110	12.7	7.6	0.11	6	14.4	0.4	0.01
65	73	13733	7.4	7.0	9.1	14.1	16.2	1.25	2.3	6.4	0.26	1.29	59.0	128	0.85	0.060	0.053	21.7	0.78	8039	20880	669	177	D	M	0.0211	290.1	4.00	6380	9.1	180.6	2.49	245	12.8	17.8	0.25	20	14.5	1.8	0.02
70	78	12107	7.9	7.5	9.5	14.7	16.8	1.31	2.4	6.7	0.26	1.40	59.0	126	0.91	0.062	0.054	21.0	0.78	7772	20880	641	170	D	M	0.0251	303.9	3.92	6513	9.3	208.4	2.69	441	12.9	33.5	0.43	56	14.6	5.0	0.06
75	83	10740	8.4	7.9	9.8	15.1	17.4	1.36	2.5	7.0	0.26	1.52	58.9	124	0.96	0.064	0.056	20.4	0.78	7519	20880	613	163	D	M	0.0294	315.8	3.82	6464	9.6	232.4	2.81	683	13.1	54.2	0.66	135	14.6	12.1	0.15
80	88	9584	8.8	8.4	10.1	15.6	17.9	1.41	2.6	7.3	0.26	1.64	58.5	122	1.02	0.066	0.057	19.7	0.77	7282	20880	587	157	D	M	0.0340	326.0	3.72	6292	9.9	253.0	2.89	944	13.3	78.3	0.89	238	14.8	22.2	0.25
85	93	8600	9.3	8.8	10.5	16.0	18.4	1.46	2.7	7.6	0.26	1.76	58.1	120	1.08	0.067	0.059	19.1	0.76	7059	20880	563	151	D	M	0.0389	334.6	3.61	6045	10.2	270.4	2.92	1199	13.4	104.2	1.13	367	14.9	35.8	0.39
90	98	7757	9.7	9.2	10.7	16.4	18.8	1.51	2.8	7.9	0.26	1.88	57.5	119	1.14	0.069	0.060	18.4	0.75	6850	20880	540	146	D	M	0.0441	341.8	3.50	5756	10.6	285.0	2.92	1433	13.6	130.2	1.33	514	15.0	52.3	0.54
95	103	7030	10.1	9.7	11.0	16.7	19.2	1.56	2.9	8.1	0.26	2.01	56.9	117	1.19	0.071	0.062	17.9	0.74	6653	20880	518	141	D	M	0.0495	347.9	3.39	5450	10.9	297.3	2.90	1635	13.8	155.4	1.51	669	15.2	70.8	0.69
100	108	6399	10.6	10.1	11.3	17.1	19.6	1.60	3.0	8.4	0.26	2.13	56.2	116	1.25	0.073	0.064	17.3	0.73	6468	20880	498	136	D	M	0.0551	352.9	3.28	5142	11.2	307.6	2.86	1799	14.0	178.9	1.66	822	15.3	90.5	0.84
105	113	5850	11.0	10.5	11.5	17.4	20.0	1.65	3.1	8.6	0.26	2.26	55.5	114	1.31	0.075	0.065	16.7	0.72	6295	20880	479	132	D	M	0.0610	357.0	3.17	4841	11.5	316.1	2.81	1927	14.2	200.2	1.78	964	15.5	110.5	0.98
110	118	5368	11.4	10.9	11.8	17.7	20.3	1.70	3.2	8.8	0.26	2.39	54.8	113	1.36	0.077	0.067	16.2	0.71	6131	20880	462	128	D	M	0.0671	360.2	3.06	4552	11.8	323.2	2.75	2019	14.4	219.3	1.86	1093	15.7	130.2	1.11
115	123	4944	11.8	11.3	12.0	17.9	20.6	1.74	3.3	9.0	0.26	2.52	54.1	112	1.42	0.079	0.069	15.7	0.70	5977	20880	445	124	D	M	0.0734	362.8	2.96	4278	12.1	329.0	2.68	2080	14.6	236.1	1.93	1202	15.9	149.1	1.22
120	128	4569	12.2	11.6	12.2	18.2	20.9	1.79	3.4	9.2	0.27	2.65	53.3	110	1.48	0.081	0.071	15.3	0.69	5832	20880	430	121	D	M	0.0798	364.7	2.86	4022	12.5	333.7	2.62	2114	14.8	250.6	1.96	1294	16.0	166.8	1.31
125	133	4236	12.6	12.0	12.4	18.4	21.2	1.83	3.5	9.3	0.27	2.78	52.6	109	1.54	0.083	0.073	14.8	0.67	5695	20880	415	118	D	M	0.0864	366.0	2.76	3783	12.8	337.4	2.54	2126	15.0	263.2	1.99	1367	16.2	183.1	1.38
130	138	3939	13.0	12.4	12.6	18.6	21.4	1.87	3.6	9.5	0.27	2.91	51.9	108	1.59	0.085	0.074	14.4	0.66	5566	20880	402	115	D	M	0.0931	366.9	2.67	3561	13.1	340.4	2.47	2121	15.2	273.9	1.99	1424	16.4	198.0	1.44
135	143	3673	13.3	12.7	12.7	18.9	21.7	1.91	3.6	9.6	0.27	3.04	51.2	107	1.65	0.088	0.076	14.0	0.65	5444	20880	389	112	D	M	0.1000	367.3	2.58	3357	13.4	342.6	2.40	2102	15.5	283.0	1.98	1463	16.6	211.3	1.48
140	148	3434	13.7	13.1	12.9	19.1	21.9	1.95	3.7	9.8	0.27	3.17	50.5	106	1.71	0.090	0.078	13.7	0.64	5329	20880	377	109	D	M	0.1070	367.4	2.49	3168	13.7	344.3	2.33	2072	15.7	290.6	1.97	1491	16.8	223.3	1.51
145	153	3218	14.0	13.4	13.1	19.2	22.1	1.99	3.8	9.9	0.28	3.30	49.9	105	1.76	0.092	0.080	13.3	0.63	5220	20880	366	106	D	M	0.1141	367.1	2.41	2992	14.0	345.4	2.26	2033	15.9	297.0	1.95	1505	17.0	233.9	1.53
150	158	3023	14.4	13.8	13.2	19.4	22.3	2.03	3.9	10.0	0.28	3.44	49.2	104	1.82	0.094	0.081	13.0	0.62	5117	20880	355	104	D	M	0.1213	366.6	2.33	2831	14.3	346.1	2.20	1991	16.2	302.2	1.92	1512	17.2	243.2	1.54
155	163	2847	14.7	14.1	13.4	19.6	22.5	2.07	4.0	10.1	0.28	3.57	48.6	103	1.87	0.096	0.083	12.7	0.61	5020	20880	345	102	D	M	0.1285	365.7	2.25	2682	14.6	346.4	2.13	1943	16.4	306.5	1.89	1509	17.4	251.4	1.55
160	168	2686	15.1	14.4	13.5	19.7	22.7	2.11	4.1	10.2	0.28	3.70	48.0	102	1.93	0.098	0.085	12.4	0.60	4928	20880	336	99	D	M	0.1358	364.7	2.18	2536	14.9	346.4	2.07	1891	16.6	310.0	1.85	1498	17.6	258.5	1.54
165	173	2539	15.4	14.7	13.6	19.9	22.9	2.15	4.2	10.3	0.28	3.84	47.4	101	1.98	0.100	0.087	12.1	0.59	4840	20880	327	97	D	M	0.1432	363.5	2.11	2410	15.2	346.0	2.00	1840	16.8	312.7	1.81	1463	17.8	263.1	1.52
170	178	2405	15.7	15.1	13.7	20.0	23.0	2.18	4.3	10.4	0.29	3.97	46.8	100	2.04	0.102	0.088	11.8	0.58	4757	20880	319	95	D	M	0.1506	362.1	2.04	2294	15.5	345.5	1.95	1787	17.1	314.8	1.77	1445	18.0	268.5	1.51
175	183	2282	16.1	15.4	13.9	20.2	23.2	2.22	4.3	10.5	0.29	4.10	46.3	99	2.09	0.104	0.090	11.5	0.57	4678	20880	311	94	D	M	0.1580	360.6	1.97	2182	15.8	344.7	1.89	1733	17.3	316.3	1.73	1423	18.2	273.1	1.50
180	188	2170	16.4	15.7	14.0	20.3	23.4	2.26	4.4	10.6	0.29	4.24	45.7	98	2.15	0.106	0.092	11.3	0.57	4604	20880	304	92	D	M	0.1654	359.0	1.91	2083	16.1	343.7	1.83	1682	17.5	317.4	1.69	1400	18.5	277.1	1.48

Table A64. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 15 m Initial Density = 800 stems/ha																																								
5	12	798	2.6	2.4	2.4	2.8	2.9	0.78	2.1	0.3	0.86	0.48	0.4	115	3.54	1.267	1.227	0.3	0.00	141	680	11	4	V	M	0.0006	0.5	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	792	4.9	4.5	3.8	4.4	4.6	0.98	3.1	0.9	0.76	0.79	1.5	98	3.55	0.803	0.773	0.7	0.01	258	680	23	6	A	M	0.0039	3.1	0.18	10	9.2	0.1	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	784	6.9	6.4	5.3	6.0	6.3	1.19	3.9	1.7	0.68	1.17	2.9	95	3.57	0.592	0.568	1.1	0.03	402	680	34	9	A	M	0.0110	8.6	0.39	214	9.4	3.9	0.18	7	13.0	0.3	0.01	0	0.0	0.0	0.00
20	27	774	8.6	8.1	6.6	7.6	7.9	1.38	4.4	2.6	0.62	1.59	4.5	94	3.59	0.476	0.456	1.5	0.05	559	680	46	12	A	M	0.0220	17.0	0.63	438	10.2	12.2	0.45	68	13.5	3.6	0.13	19	15.1	1.1	0.04
25	32	762	10.2	9.7	7.9	9.0	9.4	1.56	4.9	3.6	0.57	2.03	6.3	94	3.62	0.404	0.387	2.0	0.06	723	680	57	15	A	M	0.0367	28.0	0.87	563	11.1	23.2	0.72	180	14.1	12.2	0.38	81	15.5	5.9	0.18
30	37	747	11.7	11.1	9.1	10.3	10.7	1.72	5.2	4.5	0.53	2.48	8.0	93	3.66	0.357	0.342	2.3	0.08	885	680	66	19	A	M	0.0546	40.8	1.10	624	12.2	36.1	0.97	293	14.8	24.7	0.67	170	16.1	15.4	0.42
35	42	732	13.0	12.4	10.3	11.4	11.9	1.87	5.5	5.4	0.50	2.93	9.8	93	3.70	0.323	0.309	2.7	0.11	1043	680	75	21	A	M	0.0751	55.0	1.31	653	13.2	50.4	1.20	385	15.5	39.6	0.94	261	16.7	28.5	0.68
40	47	715	14.3	13.6	11.3	12.5	13.1	2.01	5.7	6.2	0.47	3.38	11.4	93	3.74	0.299	0.286	3.0	0.12	1193	680	83	24	A	M	0.0978	69.9	1.48	662	14.2	65.3	1.39	451	16.2	55.4	1.18	337	17.3	43.6	0.93
45	52	697	15.4	14.7	12.3	13.5	14.1	2.14	5.9	6.9	0.45	3.82	13.0	92	3.79	0.280	0.269	3.3	0.14	1334	680	90	27	A	M	0.1220	85.0	1.63	660	15.2	80.3	1.54	495	16.9	71.3	1.37	396	17.9	59.6	1.14
50	57	680	16.4	15.7	13.2	14.4	15.0	2.26	6.1	7.6	0.44	4.26	14.4	92	3.83	0.266	0.256	3.6	0.16	1465	680	96	29	A	M	0.1474	100.2	1.75	654	16.1	95.5	1.67	524	17.6	87.2	1.53	440	18.5	75.8	1.33
55	62	662	17.4	16.7	14.0	15.2	15.8	2.37	6.2	8.3	0.42	4.68	15.8	91	3.89	0.255	0.245	3.8	0.18	1585	680	101	31	B	M	0.1737	115.0	1.85	643	17.0	110.2	1.77	540	18.3	102.5	1.65	470	19.1	91.7	1.48
60	67	644	18.3	17.6	14.7	16.0	16.6	2.48	6.3	8.8	0.41	5.10	17.0	90	3.94	0.247	0.237	4.0	0.20	1695	680	105	33	B	M	0.2006	129.2	1.93	630	17.9	124.4	1.85	548	19.0	117.2	1.75	489	19.7	106.9	1.59
65	72	626	19.2	18.5	15.4	16.7	17.3	2.58	6.5	9.3	0.40	5.51	18.1	90	4.00	0.240	0.231	4.1	0.21	1796	680	109	34	B	M	0.2278	142.6	1.98	616	18.7	137.8	1.91	550	19.7	131.0	1.82	500	20.4	121.2	1.68
70	77	608	20.0	19.3	16.1	17.3	17.9	2.67	6.6	9.8	0.40	5.90	19.1	89	4.06	0.234	0.226	4.3	0.22	1887	680	112	36	B	M	0.2553	155.2	2.01	600	19.4	150.3	1.95	547	20.3	143.8	1.87	506	20.9	134.7	1.75
75	82	591	20.8	20.0	16.7	17.9	18.5	2.76	6.7	10.2	0.39	6.29	20.1	88	4.11	0.230	0.222	4.4	0.24	1970	680	115	37	B	M	0.2827	167.1	2.04	585	20.2	162.1	1.97	542	21.0	155.8	1.90	507	21.5	147.3	1.79
80	87	575	21.5	20.8	17.2	18.4	19.1	2.84	6.8	10.6	0.39	6.66	20.9	87	4.17	0.226	0.219	4.5	0.25	2045	680	117	38	B	M	0.3101	178.3	2.05	570	20.9	173.3	1.99	535	21.6	167.2	1.92	505	22.1	159.1	1.83
85	92	559	22.2	21.4	17.7	18.9	19.6	2.92	6.9	11.0	0.38	7.03	21.7	87	4.23	0.224	0.216	4.6	0.26	2114	680	119	39	B	M	0.3372	188.5	2.05	555	21.5	183.4	1.99	526	22.2	177.4	1.93	501	22.6	169.9	1.84
90	97	544	22.9	22.1	18.2	19.4	20.0	2.99	7.0	11.3	0.38	7.39	22.4	86	4.29	0.221	0.214	4.7	0.27	2176	680	120	40	B	M	0.3640	198.0	2.04	541	22.2	192.9	1.99	516	22.8	187.0	1.93	495	23.2	179.9	1.85
95	102	530	23.5	22.7	18.6	19.8	20.4	3.06	7.1	11.6	0.37	7.74	23.0	85	4.34	0.219	0.213	4.7	0.28	2233	680	122	41	B	M	0.3904	206.9	2.03	528	22.8	201.8	1.98	507	23.3	195.9	1.92	488	23.7	189.2	1.85
100	107	516	24.1	23.3	19.1	20.2	20.8	3.13	7.1	11.8	0.37	8.08	23.6	85	4.40	0.218	0.211	4.8	0.29	2285	680	123	42	B	M	0.4165	214.9	2.01	514	23.4	209.7	1.96	496	23.9	203.8	1.90	480	24.2	197.5	1.84
105	112	504	24.7	23.9	19.5	20.6	21.2	3.20	7.2	12.1	0.37	8.41	24.1	84	4.45	0.216	0.210	4.9	0.30	2333	680	124	42	B	M	0.4419	222.7	1.99	503	23.9	217.5	1.94	487	24.4	211.7	1.89	473	24.7	205.6	1.83
110	117	491	25.2	24.4	19.8	20.9	21.5	3.26	7.3	12.3	0.37	8.73	24.6	83	4.51	0.216	0.210	4.9	0.30	2377	680	124	43	B	M	0.4668	229.2	1.96	490	24.5	224.0	1.91	477	24.9	218.2	1.86	465	25.2	212.5	1.81
115	122	480	25.8	25.0	20.2	21.3	21.9	3.32	7.3	12.5	0.37	9.05	25.0	82	4.56	0.215	0.209	4.9	0.31	2417	680	125	43	B	M	0.4913	235.8	1.93	479	25.0	230.5	1.89	468	25.3	224.8	1.84	457	25.6	219.2	1.80
120	127	469	26.3	25.5	20.5	21.6	22.2	3.37	7.4	12.6	0.37	9.36	25.4	82	4.62	0.214	0.208	5.0	0.32	2455	680	125	44	B	M	0.5149	241.5	1.90	468	25.5	236.3	1.86	458	25.8	230.5	1.81	449	26.1	225.2	1.77
125	132	459	26.8	26.0	20.8	21.8	22.4	3.43	7.5	12.8	0.37	9.66	25.8	81	4.67	0.214	0.208	5.0	0.32	2490	680	126	44	B	M	0.5381	247.0	1.87	459	26.0	241.7	1.83	450	26.3	236.0	1.79	441	26.5	230.9	1.75
130	137	449	27.2	26.4	21.1	22.1	22.7	3.48	7.5	12.9	0.36	9.95	26.2	80	4.72	0.213	0.208	5.0	0.33	2523	680	126	45	B	M	0.5608	251.8	1.84	449	26.4	246.5	1.80	441	26.7	240.7	1.76	434	26.9	235.9	1.72
135	142	440	27.7	26.9	21.3	22.4	22.9	3.53	7.6	13.0	0.36	10.23	26.5	80	4.77	0.213	0.208	5.0	0.33	2554	680	126	45	B	M	0.5827	256.4	1.80	440	26.9	251.0	1.77	433	27.1	245.2	1.73	426	27.4	240.6	1.69
140	147	431	28.1	27.3	21.6	22.6	23.2	3.58	7.6	13.1	0.36	10.51	26.8	79	4.82	0.213	0.208	5.0	0.34	2584	680	127	45	B	M	0.6039	260.3	1.77	431	27.3	255.0	1.73	425	27.5	249.2	1.69	419	27.8	244.7	1.66
145	152	423	28.5	27.7	21.8	22.8	23.4	3.63	7.7	13.2	0.36	10.79	27.1	78	4.86	0.213	0.208	5.1	0.34	2612	680	127	46	B	M	0.6246	264.2	1.74	423	27.7	258.9	1.70	417	28.0	253.0	1.66	412	28.2	248.7	1.64
150	157	415	29.0	28.1	22.1	23.0	23.6	3.67	7.7	13.3	0.36	11.05	27.3	78	4.91	0.213	0.208	5.1	0.35	2638	680	127	46	B	M	0.6446	267.5	1.70	415	28.1	262.1	1.67	410	28.3	256.3	1.63	405	28.5	252.1	1.60
155	162	408	29.4	28.5	22.3	23.2	23.8	3.71	7.8	13.4	0.36	11.31	27.6	77	4.95	0.213	0.208	5.1	0.35	2664	680	127	46	B	M	0.6640	270.9	1.67	408	28.5	265.5	1.64	404	28.7	259.7	1.60	399	28.9	255.6	1.58
160	167	401	29.7	28.9	22.5	23.4	24.0	3.76	7.8	13.4	0.36	11.56	27.8	76	4.99	0.213	0.208	5.1	0.36	2689	680	127	46	B	M	0.6828	273.8	1.64	401	28.9	268.4	1.61	397	29.1	262.5	1.57	393	29.2	258.6	1.55
165	172	395	30.1	29.3	22.7	23.6	24.1	3.80	7.9	13.5	0.37	11.81	28.1	76	5.03	0.213	0.208	5.1	0.36	2713	680	127	47	B	M	0.7010	276.9	1.61	395	29.3	271.5	1.58	392	29.4	265.6	1.54	388	29.6	261.8	1.52
170	177	389	30.5	29.6	22.9	23.8	24.3	3.84	7.9	13.5	0.37	12.06	28.3	75	5.07	0.213	0.209	5.1	0.37	2736	680	127	47	B	M	0.7185	279.5	1.58	389	29.6	274.1	1.55	386	29.8	268.2	1.51	382	29.9	264.5	1.49
175	182	383	30.8	30.0	23.0	23.9	24.5	3.88	7.9	13.6	0.37	12.29	28.5	74	5.11	0.213	0.209	5.1	0.37	2758	680	127	47	B	M	0.7355	281.7	1.55	383	30.0	276.3	1.52	380	30.1	270.4	1.48	377	30.3	266.8	1.47
180	187	377	31.1	30.3	23.2	24.1	24.6	3.91	8.0	13.6	0.37	12.52	28.7	74	5.15	0.214	0.209	5.1	0.37	2780	680	127	47	B	M	0.7520	283.5	1.52	377	30.3	278.0	1.49	374	30.5	272.1	1.45	372	30.5	268.7	1.44
SI = 15 m Initial Density = 1000 stems/ha																																								
5	12	996	2.4	2.3	2.4	2.8	2.9	0.77	2.0	0.3	0.85	0.47	0.5	120	3.17	1.135	1.098	0.3	0.00	172	806	13	5	V	M	0.0006	0.6	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	987	4.6	4.3	3.8	4.4	4.6	0.96	3.0	0.9	0.75	0.75	1.6	101	3.18	0.720	0.692	0.8	0.02	305	806	26	7	A	M	0.0034	3.4	0.20	6	9.1	0.1	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	974	6.5	6.1	5.2	6.0	6.3	1.15	3.7	1.8	0.67	1.09	3.2	98	3.20	0.532	0.510	1.3	0.03	466	806	40	11	A	M	0.0098	9.5	0.43	216	9.2	3.7	0.17	4	12.9	0.2	0.01	0	0.0	0.0	0.00
20	27	957	8.2	7.7	6.6	7.5	7.9	1.34	4.2	2.7	0.60	1.48	5.1	97	3.23	0.429	0.410	1.8	0.05	642	806	53	14	A	M	0.0195	18.7	0.69	494	9.9	12.7	0.47	57	13.4	2.9	0.11	13	14.9	0.7	0.03
25	32	936	9.8	9.2	7.9	8.9	9.4	1.51	4.6	3.6	0.55	1.89	7.0	96	3.27	0.365	0.349	2.2	0.07	823	806	65	18	A	M	0.0328	30.7	0.96	658	10.8	24.8	0.77	175	13.9	11.3	0.35	69	15.4	4.9	0.15
30	37	913	11.2	10.6	9.1	10.2	10.7	1.66	5.0	4.6	0.51	2.31	8.9	96	3.31	0.323	0.309	2.7	0.10	1001	806	76	21	A	M	0.0491	44.8	1.21	740	11.8	39.0	1.05	307	14.5	24.6	0.66	164	15.9	14.2	0.38
35	42	887	12.5	11.8	10.2	11.4	11.9	1.81	5.2	5.4	0.48	2.73	10.8	95	3.36	0.294	0.281	3.1	0.12	1171	806	86	24	A	M	0.0678	60.1	1.43	776	12.7	54.5	1.29	420	15.2	40.8	0.97	267	16.4	27.8	0.66
40	47	861	13.7	13.0	11.2	12.5	13.1	1.95	5.4	6.3	0.46	3.16	12.6	95	3.41	0.273	0.261	3.4	0.14	1332	806	94	27	A	M	0.0886	76.3	1.62	787	13.7	70.7	1.50	503	15.8	58.1	1.23	360	16.9	44.0	0.93
45	52	833	14.8	14.1	12.2	13.5	14.1	2.07	5.6	7.0	0.44	3.58	14.3	94	3.46	0.257	0.246	3.7	0.16	1480	806	101	30	A	M	0.1110	92.5	1.78	782	14.6	87.0	1.67	560	16.5	75.6	1.45	433	17.5	61.3	1.18
50	57	806	15.8	15.1	13.0	14.4	15.0	2.19	5.8	7.7	0.42	3.99	15.8	94	3.52	0.245	0.235	4.0	0.18	1616	806	107	32	B	M	0.1347	108.6	1.90	770	15.6	103.1	1.81	596	17.2	92.9	1.63	487	18.1	78.9	1.38
55	62	778	16.8	16.1	13.9	15.2	15.8	2.30	5.9	8.3	0.41	4.40	17.2	93	3.59	0.236	0.226	4.2	0.20	1739	806	112	34	B	M	0.1595	124.1	2.00	752	16.4	118.6	1.91	615	17.8	109.3	1.76	524	18.7	96.0	1.55
60	67	751	17.7	17.0	14.6	15.9	16.6	2.41	6.1	8.9	0.40	4.81	18.5	92	3.65	0.229	0.220	4.4	0.21	1849	806	117	36	B	M	0.1850	138.9	2.07	732	17.3	133.5	1.99	624	18.5	124.9	1.86	547	19.3	112.4	1.68
65	72	725	18.6	17.8	15.3	16.6	17.3	2.50	6.2	9.4	0.39	5.20	19.6	91	3.71	0.223	0.215	4.6	0.23	1949	806	120	38	B	M	0.2110	153.0	2.12	711	18.1	147.5	2.05	625	19.2	139.5	1.93	561	19.9	127.8	1.77
70	77	699	19.4	18.6	15.9	17.3	17.9	2.60	6.3	9.9	0.39	5.59	20.6	91	3.78	0.219	0.211	4.7	0.24	2038	806	123	39	B	M	0.2373	165.9	2.15	688	18.8	160.4	2.08	619	19.8	152.8	1.98	566	20.4	142.0	1.84
75	82	675	20.2	19.4	16.5	17.8	18.5	2.69	6.4	10.3	0.38	5.97	21.5	90	3.85	0.216	0.208	4.8	0.26	2117	806	125	40	B	M	0.2640	178.2	2.17	667	19.6	172.6	2.10	611	20.4	165.4	2.01	566	21.0	155.3	1.89
80	87	652	20.9	20.1	17.1	18.4	19.1	2.77	6.5	10.7	0.37	6.34	22.4	89	3.92	0.213	0.205	4.9	0.27	2188	806	127	41	B	M	0.2905	189.4	2.17	646	20.3	183.9	2.11	600	21.0	176.9	2.03	563	21.6	167.5	1.92
85	92	630	21.6	20.8	17.6	18.9	19.6	2.85	6.6	11.0	0.37	6.71	23.1	88	3.98	0.211	0.204	5.0	0.28	2252	806	129	42	B	M	0.3170	199.7	2.17	625	21.0	194.2	2.11	587	21.7	187.4	2.03	556	22.1	178.6	1.94
90	97	609	22.3	21.5	18.1	19.3	20.0	2.92	6.7	11.3	0.37	7.06	23.7	87	4.05	0.210	0.202	5.0	0.29	2309	806	130	43	B	M	0.3433	209.1	2.15	605	21.6	203.5	2.10	574	22.2	196.9	2.03	547	22.7	188.7	1.94
95	102	590	22.9	22.1	18.5	19.8	20.4	3.00	6.8	11.6	0.37	7.41	24.3	87	4.12	0.208	0.201	5.1	0.30	2360	806	131	44	B	M	0.3693	217.9	2.13	587	22.2	212.3	2.08	561	22.8	205.9	2.02	538	23.2	198.1	1.94
100	107	571	23.5	22.8	18.9	20.2	20.8	3.07	6.9	11.9	0.36	7.75	24.8	86	4.18	0.208	0.201	5.1	0.30	2407	806	131	44	B	M	0.3949	225.5	2.11	569	22.8	220.0	2.05	547	23.3	213.7	2.00	527	23.7	206.4	1.93
105	112	554	24.1	23.3	19.3	20.5	21.2	3.13	7.0	12.1	0.36	8.09	25.3	85	4.25	0.207	0.200	5.2	0.31	2449	806	132	45	B	M	0.4202	232.8	2.08	552	23.4	227.3	2.03	533	23.9	221.0	1.97	517	24.2	214.2	1.91
110	117	538	24.7	23.9	19.7	20.9	21.5	3.20	7.1	12.3	0.36	8.41	25.8	84	4.31	0.206	0.200	5.2	0.32	2487	806	132	45	B	M	0.4452	239.5	2.05	537	23.9	233.9	2.00	521	24.4	227.7	1.94	506	24.7	221.2	1.89
115	122	523	25.2	24.4	20.0	21.2	21.9	3.26	7.2	12.5	0.36	8.73	26.2	83	4.37	0.206	0.200	5.2	0.32	2522	806	132	46	B	M	0.4694	245.5	2.01	522	24.5	240.0	1.97	508	24.9	233.8	1.91	495	25.2	227.6	1.86
120	127	509	25.8	25.0	20.3	21.5	22.2	3.32	7.2	12.7	0.36	9.04	26.5	83	4.43	0.206	0.200	5.2	0.33	2555	806	132	46	B	M	0.4933	251.1	1.98	508	25.0	245.5	1.93	496	25.3	239.3	1.88	485	25.6	233.5	1.84
125	132	495	26.3	25.5	20.6	21.8	22.4	3.37	7.3	12.8	0.36	9.35	26.8	82	4.49	0.206	0.200	5.2	0.34	2585	806	132	46	B	M	0.5164	255.6	1.93	494	25.5	250.1	1.89	484	25.8	244.0	1.85	474	26.1	238.4	1.80
130	137	483	26.7	25.9	20.9	22.1	22.7	3.43	7.4	12.9	0.36	9.64	27.1	81	4.55	0.206	0.201	5.2	0.34	2613	806	132	47	B	M	0.5391	260.4	1.90	482	26.0	254.8	1.86	473	26.3	248.7	1.81	465	26.5	243.5	1.78
135	142	471	27.2	26.4	21.2	22.3	22.9	3.48	7.4	13.1	0.36	9.93	27.4	80	4.61	0.207	0.201	5.3	0.35	2639	806	132	47	B	M	0.5611	264.3	1.86	471	26.4	258.8	1.82	463	26.7	252.7	1.78	455	26.9	247.6	1.74
140	147	461	27.7	26.8	21.5	22.5	23.2	3.53	7.5	13.2	0.36	10.22	27.7	80	4.66	0.207	0.201	5.3	0.35	2664	806	132	47	B	M	0.5826	268.6	1.83	461	26.8	263.1	1.79	454	27.1	257.0	1.75	447	27.3	252.1	1.71
145	152	450	28.1	27.3	21.7	22.8	23.4	3.58	7.6	13.2	0.36	10.49	27.9	79	4.71	0.207	0.202	5.3	0.35	2688	806	132	47	B	M	0.6036	271.6	1.79	450	27.3	266.0	1.75	444	27.5	260.0	1.71	437	27.7	255.3	1.68
150	157	441	28.5	27.7	21.9	23.0	23.6	3.62	7.6	13.3	0.36	10.76	28.2	78	4.76	0.207	0.202	5.3	0.36	2710	806	132	47	B	M	0.6238	275.1	1.75	441	27.7	269.5	1.72	435	27.9	263.4	1.68	430	28.1	259.0	1.65
155	162	432	28.9	28.1	22.1	23.2	23.8	3.67	7.7	13.4	0.36	11.03	28.4	78	4.81	0.208	0.202	5.3	0.36	2732	806	132	48	B	M	0.6435	278.0	1.71	432	28.1	272.4	1.68	427	28.3	266.3	1.64	422	28.5	262.0	1.62
160	167	424	29.3	28.5	22.3	23.4	24.0	3.71	7.7	13.5	0.36	11.28	28.6	77	4.86	0.208	0.203	5.3	0.37	2753	806	132	48	B	M	0.6625	280.9	1.68	424	28.5	275.3	1.65	419	28.7	269.2	1.61	415	28.8	265.1	1.59
165	172	416	29.7	28.9	22.5	23.6	24.1	3.75	7.7	13.5	0.36	11.54	28.8	76	4.90	0.208	0.203	5.3	0.37	2773	806	132	48	B	M	0.6810	283.3	1.65	416	28.9	277.7	1.61	412	29.0	271.6	1.58	408	29.2	267.6	1.55
170	177	408	30.1	29.2	22.7	23.7	24.3	3.79	7.8	13.5	0.36	11.78	28.9	76	4.95	0.209	0.204	5.3	0.37	2793	806	131	48	B	M	0.6988	285.1	1.61	408	29.2	279.5	1.58	404	29.4	273.4	1.54	401	29.5	269.6	1.52
175	182	401	30.4	29.6	22.9	23.9	24.5	3.83	7.8	13.6	0.36	12.03	29.1	75	4.99	0.209	0.204	5.3	0.38	2813	806	131	48	B	M	0.7162	287.2	1.58	401	29.6	281.6	1.55	398	29.7	275.5	1.51	394	29.9	271.7	1.49
180	187	395	30.8	29.9	23.1	24.0	24.6	3.87	7.9	13.6	0.36	12.26	29.4	74	5.03	0.209	0.204	5.3	0.38	2832	806	131	48	B	M	0.7329	289.5	1.55	395	29.9	283.9	1.52	392	30.1	277.8	1.48	389	30.2	274.1	1.46

Table A65. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 15 m Initial Density = 1600 stems/ha																																								
5	12	1590	2.2	2.0	2.4	2.8	2.9	0.75	1.9	0.4	0.83	0.44	0.6	132	2.51	0.901	0.869	0.4	0.01	259	1137	18	7	A	M	0.0004	0.7	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	1567	4.1	3.8	3.7	4.4	4.6	0.91	2.7	1.0	0.72	0.67	2.1	108	2.53	0.574	0.550	1.0	0.02	432	1137	37	11	A	M	0.0027	4.2	0.25	2	8.7	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	1532	5.8	5.5	5.1	6.0	6.3	1.08	3.3	1.9	0.63	0.96	4.1	104	2.55	0.426	0.407	1.7	0.04	638	1137	55	15	A	M	0.0076	11.6	0.52	196	8.9	3.0	0.14	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	1488	7.4	7.0	6.4	7.5	7.9	1.25	3.8	2.8	0.57	1.29	6.4	103	2.59	0.346	0.329	2.4	0.07	858	1137	72	19	A	M	0.0153	22.8	0.84	599	9.4	13.1	0.48	31	13.1	1.5	0.06	4	14.7	0.2	0.01
25	32	1436	8.8	8.3	7.7	8.9	9.4	1.40	4.2	3.7	0.52	1.63	8.8	102	2.64	0.297	0.282	3.0	0.09	1079	1137	88	23	A	M	0.0259	37.2	1.16	883	10.1	27.7	0.86	143	13.5	8.6	0.27	40	15.0	2.7	0.08
30	37	1379	10.1	9.6	8.9	10.2	10.7	1.55	4.4	4.7	0.48	2.00	11.1	101	2.69	0.264	0.251	3.5	0.12	1291	1137	101	28	A	M	0.0391	53.9	1.45	1032	11.0	44.9	1.21	310	14.0	22.7	0.61	131	15.4	10.5	0.28
35	42	1319	11.3	10.8	10.0	11.4	11.9	1.69	4.7	5.5	0.45	2.37	13.3	100	2.75	0.242	0.231	4.0	0.15	1489	1137	112	31	B	M	0.0545	71.9	1.71	1096	11.8	63.4	1.51	473	14.5	41.2	0.98	256	15.9	24.2	0.57
40	47	1258	12.5	11.9	11.0	12.4	13.1	1.82	4.9	6.3	0.43	2.74	15.4	99	2.82	0.227	0.216	4.4	0.17	1668	1137	122	35	B	M	0.0719	90.5	1.92	1110	12.7	82.4	1.75	604	15.1	61.9	1.31	384	16.3	42.1	0.89
45	52	1196	13.6	12.9	11.9	13.4	14.1	1.94	5.1	7.1	0.41	3.12	17.3	99	2.89	0.216	0.205	4.7	0.20	1829	1137	130	37	B	M	0.0911	108.9	2.09	1096	13.6	101.1	1.94	696	15.7	82.9	1.59	492	16.8	62.1	1.19
50	57	1137	14.6	13.9	12.8	14.3	15.0	2.05	5.2	7.8	0.40	3.50	18.9	98	2.97	0.207	0.198	5.0	0.22	1970	1137	136	40	B	M	0.1117	127.0	2.22	1068	14.5	119.4	2.09	755	16.3	103.3	1.81	576	17.3	82.8	1.45
55	62	1079	15.5	14.9	13.6	15.1	15.8	2.16	5.4	8.4	0.39	3.88	20.4	97	3.04	0.201	0.192	5.2	0.24	2094	1137	140	42	B	M	0.1335	144.0	2.32	1030	15.3	136.6	2.20	786	16.9	122.4	1.97	634	17.9	102.8	1.66
60	67	1024	16.4	15.8	14.3	15.9	16.6	2.26	5.5	8.9	0.38	4.26	21.7	96	3.13	0.197	0.188	5.4	0.26	2201	1137	144	44	B	M	0.1563	160.0	2.38	989	16.1	152.8	2.28	798	17.6	140.1	2.09	671	18.4	121.8	1.82
65	72	972	17.3	16.6	15.0	16.5	17.3	2.36	5.7	9.5	0.37	4.63	22.8	95	3.21	0.194	0.185	5.5	0.27	2293	1137	147	45	B	M	0.1797	174.7	2.42	946	16.9	167.7	2.33	797	18.2	156.3	2.17	691	19.0	139.3	1.93
70	77	924	18.1	17.4	15.6	17.2	17.9	2.46	5.8	9.9	0.36	5.00	23.8	94	3.29	0.192	0.183	5.6	0.28	2373	1137	148	46	B	M	0.2039	188.4	2.44	905	17.7	181.5	2.35	787	18.8	171.1	2.22	700	19.5	155.6	2.02
75	82	878	18.9	18.2	16.2	17.7	18.5	2.55	5.9	10.3	0.36	5.37	24.7	93	3.37	0.190	0.182	5.7	0.30	2441	1137	150	47	B	M	0.2285	200.6	2.44	864	18.4	193.8	2.36	770	19.4	184.2	2.24	698	20.1	170.0	2.07
80	87	836	19.7	18.9	16.8	18.3	19.1	2.63	6.0	10.7	0.36	5.73	25.4	92	3.46	0.189	0.181	5.7	0.31	2499	1137	150	48	B	M	0.2533	211.8	2.43	825	19.1	205.1	2.35	750	20.0	196.1	2.25	690	20.6	183.0	2.10
85	92	798	20.4	19.7	17.3	18.8	19.6	2.71	6.2	11.1	0.35	6.09	26.0	91	3.54	0.189	0.181	5.8	0.32	2549	1137	151	49	B	M	0.2784	222.2	2.41	790	19.8	215.6	2.34	729	20.6	207.1	2.25	679	21.2	195.0	2.12
90	97	762	21.1	20.3	17.7	19.2	20.0	2.79	6.3	11.4	0.35	6.44	26.6	90	3.62	0.188	0.181	5.8	0.33	2593	1137	151	49	B	M	0.3035	231.3	2.38	756	20.5	224.7	2.31	706	21.2	216.6	2.23	664	21.7	205.5	2.12
95	102	729	21.7	21.0	18.2	19.7	20.4	2.87	6.4	11.7	0.35	6.78	27.1	89	3.70	0.188	0.181	5.8	0.33	2630	1137	150	49	B	M	0.3285	239.5	2.35	724	21.1	233.0	2.28	683	21.8	225.2	2.21	648	22.2	215.0	2.11
100	107	698	22.4	21.6	18.6	20.1	20.8	2.94	6.5	11.9	0.35	7.12	27.5	88	3.79	0.189	0.182	5.8	0.34	2663	1137	150	50	B	M	0.3533	246.6	2.30	694	21.7	240.2	2.24	660	22.3	232.7	2.17	631	22.7	223.3	2.08
105	112	670	23.0	22.2	19.0	20.4	21.2	3.01	6.6	12.1	0.35	7.46	27.8	87	3.86	0.189	0.182	5.8	0.34	2692	1137	149	50	B	M	0.3779	253.2	2.26	667	22.3	246.9	2.20	638	22.9	239.5	2.14	613	23.3	230.7	2.06
110	117	644	23.6	22.8	19.4	20.8	21.5	3.07	6.7	12.3	0.35	7.78	28.1	87	3.94	0.190	0.183	5.8	0.35	2717	1137	148	50	C	M	0.4023	259.1	2.21	642	22.9	252.8	2.16	618	23.4	245.7	2.10	596	23.7	237.4	2.03
115	122	620	24.1	23.4	19.7	21.1	21.9	3.14	6.8	12.5	0.35	8.10	28.4	86	4.02	0.190	0.184	5.8	0.35	2739	1137	148	50	C	M	0.4263	264.3	2.16	618	23.4	258.0	2.11	598	23.9	251.0	2.06	579	24.2	243.3	1.99
120	127	599	24.7	23.9	20.0	21.4	22.2	3.20	6.9	12.7	0.35	8.42	28.7	85	4.09	0.191	0.184	5.8	0.36	2760	1137	147	50	C	M	0.4497	269.4	2.12	597	24.0	263.3	2.07	580	24.4	256.3	2.02	564	24.7	249.1	1.96
125	132	578	25.2	24.4	20.3	21.7	22.4	3.26	7.0	12.8	0.35	8.72	28.9	84	4.16	0.192	0.185	5.7	0.36	2779	1137	146	50	C	M	0.4728	273.3	2.07	577	24.5	267.2	2.02	562	24.8	260.4	1.97	548	25.2	253.6	1.92
130	137	560	25.7	24.9	20.6	21.9	22.7	3.31	7.0	13.0	0.35	9.03	29.1	83	4.23	0.193	0.186	5.7	0.37	2796	1137	145	51	C	M	0.4955	277.5	2.02	559	25.0	271.4	1.98	546	25.3	264.7	1.93	534	25.6	258.2	1.88
135	142	542	26.2	25.4	20.9	22.2	22.9	3.37	7.1	13.1	0.35	9.32	29.3	82	4.30	0.194	0.187	5.7	0.37	2812	1137	145	51	C	M	0.5177	280.6	1.97	541	25.5	274.5	1.93	530	25.8	267.8	1.88	519	26.0	261.7	1.84
140	147	526	26.7	25.9	21.1	22.4	23.2	3.42	7.2	13.2	0.35	9.61	29.4	82	4.36	0.194	0.188	5.7	0.37	2827	1137	144	51	C	M	0.5392	283.6	1.93	525	25.9	277.6	1.89	516	26.2	271.0	1.84	506	26.5	265.2	1.80
145	152	512	27.1	26.3	21.4	22.7	23.4	3.47	7.3	13.3	0.35	9.89	29.6	81	4.42	0.195	0.189	5.7	0.37	2841	1137	143	51	C	M	0.5604	286.9	1.89	512	26.3	280.9	1.85	503	26.6	274.3	1.80	494	26.9	268.7	1.77
150	157	498	27.6	26.8	21.6	22.9	23.6	3.52	7.3	13.4	0.35	10.17	29.8	80	4.48	0.196	0.190	5.7	0.38	2855	1137	142	51	C	M	0.5807	289.2	1.84	498	26.8	283.2	1.80	490	27.0	276.7	1.76	483	27.2	271.5	1.73
155	162	485	28.0	27.2	21.8	23.1	23.8	3.57	7.4	13.4	0.35	10.44	29.9	79	4.54	0.197	0.191	5.6	0.38	2869	1137	142	51	C	M	0.6006	291.3	1.80	485	27.2	285.4	1.76	478	27.4	278.9	1.72	471	27.7	273.8	1.69
160	167	473	28.4	27.6	22.0	23.3	24.0	3.61	7.4	13.5	0.35	10.70	30.0	79	4.60	0.198	0.192	5.6	0.38	2882	1137	141	51	C	M	0.6201	293.3	1.76	473	27.6	287.4	1.72	467	27.8	280.9	1.68	461	28.0	276.1	1.65
165	172	462	28.8	28.0	22.2	23.4	24.1	3.66	7.5	13.5	0.35	10.96	30.1	78	4.65	0.198	0.193	5.6	0.38	2895	1137	140	51	C	M	0.6390	295.2	1.72	462	28.0	289.2	1.68	456	28.2	282.8	1.64	451	28.4	278.2	1.62
170	177	452	29.2	28.4	22.4	23.6	24.3	3.70	7.5	13.6	0.35	11.21	30.3	77	4.70	0.199	0.193	5.6	0.39	2908	1137	140	51	C	M	0.6571	297.0	1.68	452	28.4	291.1	1.64	447	28.6	284.7	1.61	442	28.8	280.3	1.58
175	182	443	29.6	28.8	22.6	23.8	24.5	3.74	7.6	13.6	0.35	11.46	30.4	76	4.75	0.200	0.194	5.6	0.39	2921	1137	139	51	C	M	0.6749	299.0	1.64	443	28.8	293.1	1.61	439	28.9	286.7	1.57	434	29.1	282.3	1.55
180	187	434	29.9	29.1	22.7	23.9	24.6	3.78	7.6	13.6	0.36	11.71	30.6	76	4.80	0.201	0.195	5.6	0.39	2934	1137	139	51	C	M	0.6919	300.3	1.60	434	29.1	294.4	1.57	430	29.3	288.0	1.54	426	29.4	283.9	1.52
SI = 15 m Initial Density = 2000 stems/ha																																								
5	12	1985	2.0	1.9	2.3	2.8	2.9	0.74	1.8	0.4	0.81	0.43	0.6	138	2.24	0.808	0.778	0.5	0.01	314	1332	22	9	A	M	0.0004	0.8	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	1950	3.9	3.6	3.7	4.4	4.6	0.89	2.6	1.0	0.71	0.64	2.3	112	2.26	0.515	0.493	1.2	0.02	511	1332	43	12	A	M	0.0024	4.6	0.27	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	1898	5.5	5.2	5.1	6.0	6.3	1.05	3.2	1.9	0.62	0.91	4.6	107	2.30	0.384	0.365	1.9	0.05	742	1332	64	17	A	M	0.0067	12.7	0.57	174	8.8	2.5	0.11	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	1832	7.0	6.6	6.4	7.5	7.9	1.21	3.6	2.8	0.55	1.21	7.1	105	2.34	0.312	0.296	2.7	0.08	985	1332	83	22	A	M	0.0136	24.9	0.92	636	9.2	12.9	0.48	21	12.9	1.0	0.04	2	14.4	0.1	0.00
25	32	1755	8.4	7.9	7.6	8.9	9.4	1.36	3.9	3.8	0.50	1.53	9.7	104	2.39	0.269	0.255	3.4	0.11	1227	1332	101	27	A	M	0.0231	40.5	1.26	996	9.9	28.7	0.89	121	13.3	7.1	0.22	28	14.9	1.8	0.06
30	37	1673	9.7	9.2	8.8	10.2	10.7	1.50	4.2	4.7	0.46	1.87	12.3	103	2.44	0.241	0.228	4.0	0.14	1455	1332	115	31	B	M	0.0350	58.5	1.58	1193	10.6	47.4	1.28	295	13.8	20.8	0.56	109	15.3	8.4	0.23
35	42	1586	10.9	10.3	9.8	11.3	11.9	1.63	4.4	5.6	0.44	2.21	14.7	103	2.51	0.222	0.210	4.5	0.17	1664	1332	127	35	B	M	0.0491	77.8	1.85	1278	11.5	67.5	1.60	483	14.3	40.2	0.95	238	15.6	21.6	0.51
40	47	1499	12.0	11.4	10.9	12.4	13.1	1.76	4.6	6.4	0.41	2.57	16.9	102	2.58	0.208	0.198	4.9	0.19	1852	1332	137	39	B	M	0.0651	97.6	2.07	1296	12.3	87.8	1.86	641	14.8	62.4	1.32	380	16.1	39.8	0.84
45	52	1414	13.0	12.4	11.8	13.4	14.1	1.88	4.8	7.1	0.40	2.93	18.8	101	2.66	0.199	0.189	5.2	0.22	2016	1332	145	41	B	M	0.0828	117.1	2.25	1278	13.1	107.9	2.07	756	15.4	85.1	1.63	508	16.5	61.0	1.17
50	57	1332	14.0	13.4	12.6	14.3	15.0	1.99	5.0	7.8	0.38	3.29	20.5	100	2.74	0.192	0.183	5.5	0.24	2158	1332	151	44	B	M	0.1020	135.9	2.38	1238	14.0	127.1	2.23	830	15.9	107.1	1.88	609	17.0	83.0	1.45
55	62	1254	15.0	14.3	13.4	15.1	15.8	2.10	5.1	8.4	0.37	3.66	22.0	99	2.82	0.187	0.178	5.7	0.26	2280	1332	155	46	B	M	0.1225	153.6	2.47	1188	14.8	145.1	2.34	871	16.5	127.7	2.06	681	17.5	104.5	1.68
60	67	1181	15.9	15.2	14.2	15.8	16.6	2.20	5.3	8.9	0.37	4.02	23.3	98	2.91	0.184	0.175	5.9	0.28	2383	1332	158	47	B	M	0.1440	170.1	2.53	1134	15.6	161.9	2.41	887	17.1	146.6	2.18	728	18.0	124.9	1.86
65	72	1113	16.7	16.1	14.8	16.5	17.3	2.30	5.4	9.5	0.36	4.38	24.4	97	3.00	0.182	0.173	6.0	0.29	2470	1332	160	49	B	M	0.1664	185.2	2.57	1079	16.4	177.3	2.46	886	17.7	163.7	2.27	754	18.6	143.7	1.99
70	77	1050	17.5	16.9	15.5	17.1	17.9	2.39	5.6	9.9	0.35	4.74	25.4	96	3.09	0.180	0.172	6.1	0.30	2543	1332	162	50	B	M	0.1895	199.0	2.58	1025	17.1	191.3	2.48	874	18.3	179.1	2.32	765	19.1	160.8	2.09
75	82	992	18.3	17.6	16.1	17.7	18.5	2.48	5.7	10.3	0.35	5.10	26.2	94	3.18	0.179	0.171	6.1	0.32	2604	1332	162	51	C	M	0.2131	211.4	2.57	973	17.9	203.9	2.48	854	19.0	192.8	2.35	764	19.7	176.1	2.14
80	87	938	19.1	18.4	16.6	18.2	19.1	2.57	5.8	10.7	0.35	5.46	26.9	93	3.27	0.179	0.171	6.1	0.33	2655	1332	162	51	C	M	0.2371	222.4	2.55	924	18.6	215.1	2.47	829	19.5	204.8	2.35	755	20.2	189.7	2.18
85	92	890	19.8	19.1	17.1	18.7	19.6	2.65	6.0	11.1	0.35	5.81	27.5	92	3.35	0.179	0.171	6.2	0.33	2698	1332	162	52	C	M	0.2613	232.6	2.53	879	19.3	225.4	2.45	803	20.1	215.9	2.34	742	20.7	202.0	2.19
90	97	845	20.5	19.8	17.6	19.2	20.0	2.73	6.1	11.4	0.34	6.16	28.0	91	3.44	0.179	0.172	6.2	0.34	2733	1332	161	52	C	M	0.2858	241.5	2.49	837	19.9	234.4	2.41	775	20.7	225.4	2.32	724	21.3	212.7	2.19
95	102	804	21.2	20.5	18.0	19.6	20.4	2.81	6.2	11.7	0.34	6.50	28.4	90	3.53	0.180	0.173	6.2	0.35	2764	1332	160	52	C	M	0.3102	249.4	2.44	798	20.6	242.4	2.37	747	21.3	233.9	2.29	704	21.8	222.2	2.18
100	107	767	21.8	21.1	18.4	20.0	20.8	2.88	6.3	11.9	0.34	6.83	28.7	90	3.61	0.181	0.173	6.1	0.35	2789	1332	159	52	C	M	0.3346	256.6	2.40	762	21.2	249.7	2.33	720	21.8	241.5	2.25	684	22.3	230.7	2.15
105	112	733	22.5	21.7	18.8	20.4	21.2	2.95	6.4	12.1	0.34	7.17	29.0	89	3.69	0.181	0.174	6.1	0.36	2811	1332	158	53	C	M	0.3587	262.9	2.35	729	21.8	256.2	2.29	694	22.4	248.2	2.21	664	22.8	238.3	2.13
110	117	701	23.1	22.3	19.2	20.7	21.5	3.01	6.5	12.3	0.34	7.49	29.3	88	3.78	0.182	0.175	6.1	0.36	2830	1332	157	53	C	M	0.3826	268.2	2.29	698	22.4	261.5	2.23	669	22.9	253.9	2.17	643	23.3	244.6	2.09
115	122	673	23.6	22.9	19.5	21.0	21.9	3.08	6.6	12.5	0.34	7.81	29.5	87	3.85	0.183	0.176	6.1	0.37	2846	1332	156	53	C	M	0.4062	273.4	2.24	670	22.9	266.8	2.19	646	23.4	259.3	2.12	624	23.8	250.7	2.05
120	127	647	24.2	23.4	19.8	21.3	22.2	3.14	6.7	12.7	0.34	8.12	29.7	86	3.93	0.184	0.177	6.0	0.37	2860	1332	154	53	C	M	0.4295	277.9	2.19	645	23.5	271.4	2.14	624	23.9	264.1	2.08	605	24.3	256.0	2.01
125	132	623	24.7	23.9	20.1	21.6	22.4	3.20	6.8	12.8	0.34	8.43	29.9	85	4.01	0.185	0.179	6.0	0.37	2873	1332	153	53	C	M	0.4525	281.9	2.13	621	24.0	275.4	2.08	604	24.4	268.3	2.03	587	24.7	260.7	1.97
130	137	601	25.2	24.5	20.4	21.9	22.7	3.26	6.9	13.0	0.34	8.73	30.1	84	4.08	0.186	0.180	6.0	0.38	2885	1332	152	52	C	M	0.4749	285.4	2.08	600	24.5	279.0	2.03	584	24.9	271.9	1.98	570	25.2	264.9	1.93
135	142	580	25.7	24.9	20.7	22.1	22.9	3.31	7.0	13.1	0.34	9.03	30.2	83	4.15	0.188	0.181	5.9	0.38	2896	1332	151	52	C	M	0.4969	288.2	2.03	579	25.0	281.9	1.98	566	25.3	274.9	1.93	553	25.6	268.2	1.89
140	147	562	26.2	25.4	20.9	22.4	23.2	3.37	7.0	13.2	0.34	9.32	30.3	82	4.22	0.189	0.182	5.9	0.38	2907	1332	150	52	C	M	0.5183	291.3	1.98	561	25.5	285.1	1.94	550	25.8	278.2	1.89	539	26.0	271.9	1.85
145	152	544	26.7	25.9	21.2	22.6	23.4	3.42	7.1	13.3	0.35	9.60	30.4	82	4.29	0.190	0.183	5.9	0.38	2917	1332	149	52	C	M	0.5393	293.4	1.93	543	25.9	287.2	1.89	533	26.2	280.3	1.84	523	26.5	274.3	1.80
150	157	528	27.1	26.3	21.4	22.8	23.6	3.47	7.2	13.4	0.35	9.88	30.5	81	4.35	0.191	0.184	5.9	0.39	2926	1332	148	52	C	M	0.5598	295.6	1.88	528	26.3	289.4	1.84	519	26.6	282.7	1.80	510	26.8	276.9	1.76
155	162	514	27.6	26.7	21.6	23.0	23.8	3.52	7.2	13.4	0.35	10.15	30.6	80	4.41	0.192	0.185	5.8	0.39	2936	1332	147	52	C	M	0.5798	298.0	1.84	514	26.7	291.9	1.80	506	27.0	285.2	1.76	498	27.2	279.7	1.73
160	167	500	28.0	27.2	21.8	23.2	24.0	3.56	7.3	13.5	0.35	10.42	30.7	79	4.47	0.193	0.187	5.8	0.39	2945	1332	146	52	C	M	0.5992	299.6	1.79	500	27.2	293.5	1.76	493	27.4	286.8	1.72	486	27.6	281.6	1.69
165	172	487	28.4	27.6	22.0	23.4	24.1	3.61	7.4	13.5	0.35	10.68	30.8	79	4.53	0.194	0.188	5.8	0.39	2955	1332	145	52	C	M	0.6181	301.0	1.75	487	27.6	294.9	1.71	481	27.8	288.3	1.68	474	28.0	283.3	1.65
170	177	476	28.8	28.0	22.2	23.5	24.3	3.65	7.4	13.6	0.35	10.93	30.9	78	4.58	0.195	0.189	5.8	0.39	2964	1332	144	52	C	M	0.6366	303.0	1.71	476	28.0	296.9	1.68	470	28.2	290.2	1.64	465	28.3	285.5	1.61
175	182	465	29.2	28.3	22.4	23.7	24.5	3.69	7.5	13.6	0.35	11.18	31.0	77	4.64	0.196	0.189	5.7	0.40	2974	1332	143	52	C	M	0.6542	304.2	1.67	465	28.3	298.2	1.64	460	28.5	291.6	1.60	455	28.7	287.0	1.58
180	187	455	29.5	28.7	22.6	23.9	24.6	3.73	7.5	13.6	0.35	11.43	31.1	76	4.69	0.196	0.190	5.7	0.40	2984	1332	143	52	C	M	0.6714	305.5	1.63	455	28.7	299.5	1.60	450	28.9	292.9	1.57	446	29.0	288.5	1.54

Table A66. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 15 m Initial Density = 3000 stems/ha																																								
5	12	2970	1.8	1.7	2.3	2.8	2.9	0.72	1.7	0.4	0.79	0.41	0.8	150	1.83	0.662	0.636	0.6	0.01	449	1770	29	12	A	M	0.0003	0.9	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	2900	3.5	3.3	3.6	4.4	4.6	0.86	2.4	1.1	0.68	0.59	2.8	119	1.86	0.424	0.404	1.5	0.03	694	1770	57	17	A	M	0.0019	5.4	0.32	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	2796	5.0	4.7	4.9	6.0	6.3	1.00	2.9	2.0	0.59	0.82	5.6	113	1.89	0.317	0.301	2.5	0.06	976	1770	84	23	A	M	0.0053	14.8	0.67	121	8.6	1.6	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	2666	6.4	6.0	6.2	7.4	7.9	1.15	3.3	2.9	0.52	1.07	8.6	111	1.94	0.260	0.246	3.4	0.09	1266	1770	108	29	A	M	0.0109	29.1	1.07	661	8.9	11.9	0.44	8	12.7	0.4	0.01	0	0.0	0.0	0.00
25	32	2520	7.7	7.3	7.4	8.8	9.4	1.28	3.6	3.8	0.47	1.35	11.7	109	1.99	0.226	0.213	4.2	0.13	1547	1770	129	34	B	M	0.0187	47.1	1.47	1193	9.4	29.7	0.93	75	13.1	4.2	0.13	11	14.7	0.7	0.02
30	37	2365	8.9	8.4	8.6	10.1	10.7	1.41	3.8	4.7	0.44	1.65	14.6	108	2.06	0.204	0.192	4.9	0.17	1804	1770	146	39	B	M	0.0286	67.6	1.82	1514	10.1	51.3	1.38	243	13.5	16.1	0.43	67	15.0	4.9	0.13
35	42	2208	10.0	9.5	9.6	11.3	11.9	1.54	4.0	5.6	0.41	1.96	17.4	107	2.13	0.189	0.178	5.5	0.20	2033	1770	159	43	B	M	0.0404	89.2	2.12	1659	10.8	74.3	1.76	466	13.9	35.9	0.85	186	15.3	15.8	0.38
40	47	2054	11.1	10.5	10.6	12.3	13.1	1.66	4.2	6.4	0.39	2.28	19.8	105	2.21	0.179	0.169	5.9	0.23	2231	1770	170	47	B	M	0.0541	111.1	2.36	1695	11.6	97.5	2.07	678	14.3	60.5	1.28	344	15.7	33.4	0.71
45	52	1908	12.1	11.5	11.5	13.3	14.1	1.77	4.4	7.1	0.38	2.61	21.9	104	2.29	0.172	0.163	6.3	0.26	2398	1770	177	50	B	M	0.0694	132.5	2.54	1669	12.4	119.9	2.30	845	14.8	86.5	1.66	506	16.1	55.8	1.07
50	57	1770	13.0	12.5	12.4	14.2	15.0	1.88	4.5	7.7	0.36	2.94	23.7	103	2.38	0.168	0.158	6.6	0.28	2537	1770	182	52	C	M	0.0863	152.7	2.67	1608	13.2	141.0	2.47	959	15.3	111.9	1.96	644	16.5	80.1	1.40
55	62	1642	14.0	13.4	13.1	15.0	15.8	1.99	4.7	8.3	0.36	3.28	25.2	102	2.47	0.165	0.156	6.7	0.30	2651	1770	186	54	C	M	0.1044	171.4	2.76	1530	13.9	160.5	2.58	1026	15.9	135.4	2.18	749	17.0	104.5	1.68
60	67	1525	14.9	14.2	13.9	15.7	16.6	2.09	4.9	8.9	0.35	3.62	26.5	101	2.56	0.163	0.154	6.9	0.32	2743	1770	187	55	C	M	0.1237	188.6	2.81	1446	14.7	178.3	2.66	1056	16.4	156.7	2.34	821	17.4	127.7	1.90
65	72	1419	15.7	15.1	14.5	16.4	17.3	2.19	5.0	9.4	0.34	3.96	27.5	100	2.65	0.162	0.153	6.9	0.33	2817	1770	188	56	C	M	0.1440	204.3	2.83	1363	15.5	194.5	2.70	1060	17.0	175.7	2.44	864	17.9	149.0	2.07
70	77	1323	16.5	15.9	15.1	17.0	17.9	2.28	5.2	9.9	0.34	4.30	28.4	98	2.75	0.162	0.153	7.0	0.34	2876	1770	188	57	C	M	0.1651	218.4	2.83	1282	16.2	209.0	2.71	1046	17.6	192.5	2.50	885	18.4	168.2	2.18
75	82	1235	17.3	16.7	15.7	17.6	18.5	2.37	5.3	10.3	0.34	4.65	29.1	97	2.85	0.162	0.154	7.0	0.35	2922	1770	187	57	C	M	0.1868	230.7	2.81	1205	16.9	221.7	2.70	1021	18.2	207.2	2.52	888	18.9	185.1	2.25
80	87	1157	18.1	17.4	16.3	18.1	19.1	2.45	5.4	10.7	0.33	4.99	29.7	96	2.94	0.162	0.154	7.0	0.36	2958	1770	186	58	C	M	0.2091	241.9	2.78	1134	17.6	233.2	2.68	989	18.7	220.1	2.53	880	19.4	200.2	2.30
85	92	1086	18.8	18.1	16.8	18.6	19.6	2.54	5.6	11.0	0.33	5.32	30.2	95	3.03	0.163	0.155	7.0	0.37	2986	1770	184	58	C	M	0.2318	251.7	2.73	1069	18.3	243.3	2.64	953	19.3	231.3	2.51	864	20.0	213.3	2.32
90	97	1022	19.5	18.8	17.2	19.1	20.0	2.62	5.7	11.3	0.33	5.66	30.6	94	3.13	0.164	0.156	6.9	0.38	3007	1770	182	58	C	M	0.2547	260.3	2.68	1009	19.0	252.1	2.60	916	19.9	241.1	2.48	842	20.5	224.7	2.31
95	102	964	20.2	19.5	17.7	19.5	20.4	2.69	5.8	11.6	0.33	5.99	30.9	93	3.22	0.165	0.158	6.9	0.38	3022	1770	180	58	C	M	0.2777	267.7	2.62	954	19.6	259.8	2.54	879	20.4	249.5	2.44	818	21.0	234.7	2.30
100	107	912	20.8	20.1	18.1	19.9	20.8	2.77	6.0	11.9	0.33	6.32	31.1	92	3.31	0.167	0.159	6.8	0.38	3034	1770	178	58	C	M	0.3009	274.4	2.56	904	20.2	266.7	2.49	843	21.0	257.0	2.40	792	21.5	243.4	2.27
105	112	865	21.5	20.7	18.5	20.2	21.2	2.84	6.1	12.1	0.33	6.64	31.3	91	3.40	0.168	0.160	6.8	0.39	3043	1770	175	57	C	M	0.3239	280.2	2.50	859	20.8	272.7	2.43	808	21.5	263.4	2.35	765	22.0	251.0	2.24
110	117	822	22.1	21.3	18.8	20.6	21.5	2.91	6.2	12.3	0.33	6.96	31.5	90	3.49	0.169	0.162	6.7	0.39	3049	1770	173	57	C	M	0.3470	285.2	2.44	817	21.4	277.8	2.37	775	22.0	268.9	2.30	739	22.5	257.5	2.20
115	122	784	22.7	21.9	19.2	20.9	21.9	2.97	6.3	12.5	0.33	7.28	31.6	89	3.57	0.171	0.163	6.6	0.39	3053	1770	171	57	C	M	0.3698	289.9	2.37	780	22.0	282.6	2.31	745	22.5	274.1	2.24	714	23.0	263.5	2.16
120	127	748	23.2	22.5	19.5	21.2	22.2	3.03	6.4	12.7	0.33	7.58	31.7	88	3.66	0.172	0.165	6.6	0.40	3056	1770	169	57	C	M	0.3922	293.4	2.31	745	22.5	286.3	2.25	715	23.1	278.0	2.19	689	23.4	268.3	2.11
125	132	716	23.8	23.0	19.8	21.5	22.4	3.10	6.5	12.8	0.33	7.89	31.8	87	3.74	0.174	0.167	6.5	0.40	3059	1770	167	56	C	M	0.4145	296.8	2.25	713	23.1	289.8	2.19	689	23.5	281.8	2.13	666	23.9	272.7	2.06
130	137	687	24.3	23.5	20.1	21.8	22.7	3.15	6.6	12.9	0.33	8.19	31.8	86	3.82	0.175	0.168	6.5	0.40	3060	1770	165	56	C	M	0.4365	299.9	2.19	685	23.6	292.9	2.14	664	24.0	285.1	2.08	644	24.3	276.6	2.02
135	142	660	24.8	24.0	20.3	22.0	22.9	3.21	6.7	13.1	0.33	8.48	31.9	85	3.89	0.177	0.170	6.4	0.40	3062	1770	163	56	C	M	0.4580	302.3	2.13	658	24.1	295.4	2.08	640	24.5	287.8	2.03	623	24.8	279.8	1.97
140	147	636	25.3	24.5	20.6	22.2	23.2	3.27	6.8	13.2	0.34	8.77	32.0	84	3.97	0.178	0.171	6.4	0.40	3063	1770	161	56	C	M	0.4791	304.7	2.07	635	24.5	298.0	2.03	619	24.9	290.5	1.97	604	25.2	283.0	1.92
145	152	614	25.8	25.0	20.8	22.5	23.4	3.32	6.8	13.3	0.34	9.05	32.0	83	4.04	0.180	0.173	6.3	0.40	3065	1770	160	56	C	M	0.4998	306.9	2.02	613	25.0	300.2	1.97	599	25.4	292.8	1.93	586	25.6	285.7	1.88
150	157	593	26.2	25.4	21.0	22.7	23.6	3.37	6.9	13.3	0.34	9.33	32.0	82	4.11	0.181	0.174	6.3	0.40	3066	1770	158	55	C	M	0.5201	308.4	1.96	592	25.5	301.8	1.92	580	25.8	294.5	1.87	568	26.0	287.8	1.83
155	162	574	26.7	25.9	21.3	22.9	23.8	3.42	7.0	13.4	0.34	9.60	32.1	82	4.17	0.182	0.175	6.2	0.41	3068	1770	157	55	C	M	0.5399	309.9	1.91	573	25.9	303.3	1.87	563	26.2	296.1	1.83	552	26.4	289.7	1.79
160	167	557	27.1	26.3	21.5	23.1	24.0	3.47	7.1	13.5	0.34	9.86	32.1	81	4.24	0.184	0.177	6.2	0.41	3071	1770	155	55	C	M	0.5591	311.4	1.86	556	26.3	304.9	1.82	547	26.6	297.8	1.78	538	26.8	291.8	1.75
165	172	540	27.5	26.7	21.7	23.2	24.1	3.51	7.1	13.5	0.34	10.13	32.1	80	4.30	0.185	0.178	6.1	0.41	3073	1770	154	55	C	M	0.5780	312.1	1.81	540	26.7	305.6	1.78	531	27.0	298.5	1.73	523	27.2	292.8	1.70
170	177	525	27.9	27.1	21.8	23.4	24.3	3.56	7.2	13.5	0.34	10.38	32.1	79	4.36	0.186	0.179	6.1	0.41	3077	1770	153	55	C	M	0.5962	313.0	1.77	525	27.1	306.6	1.73	517	27.4	299.6	1.69	510	27.6	294.1	1.66
175	182	512	28.3	27.5	22.0	23.6	24.5	3.60	7.3	13.6	0.34	10.63	32.2	78	4.42	0.187	0.181	6.1	0.41	3080	1770	152	54	C	M	0.6141	314.4	1.73	512	27.5	308.0	1.69	505	27.7	301.1	1.65	498	27.9	295.8	1.62
180	187	499	28.7	27.9	22.2	23.7	24.6	3.64	7.3	13.6	0.35	10.88	32.3	78	4.48	0.189	0.182	6.0	0.41	3084	1770	151	54	C	M	0.6315	315.1	1.68	499	27.9	308.7	1.65	493	28.1	301.8	1.61	487	28.3	296.8	1.59
SI = 15 m Initial Density = 4000 stems/ha																																								
5	12	3952	1.7	1.6	2.3	2.8	2.9	0.71	1.6	0.5	0.77	0.40	0.9	159	1.59	0.575	0.551	0.7	0.01	578	2162	36	16	A	M	0.0003	1.0	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	3840	3.3	3.1	3.6	4.4	4.6	0.84	2.3	1.1	0.66	0.56	3.2	125	1.61	0.370	0.351	1.8	0.03	864	2162	69	21	A	M	0.0016	6.0	0.35	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	3676	4.7	4.4	4.9	5.9	6.3	0.97	2.7	2.0	0.57	0.76	6.4	117	1.65	0.278	0.262	2.9	0.07	1187	2162	101	28	A	M	0.0045	16.5	0.75	80	8.4	1.0	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	3475	6.0	5.6	6.1	7.4	7.9	1.10	3.1	2.9	0.50	0.99	9.8	114	1.70	0.229	0.215	4.0	0.11	1513	2162	129	34	B	M	0.0093	32.3	1.19	635	8.7	10.5	0.39	3	12.5	0.1	0.00	0	0.0	0.0	0.00
25	32	3250	7.2	6.8	7.3	8.8	9.4	1.23	3.3	3.8	0.46	1.25	13.3	113	1.75	0.199	0.187	4.9	0.15	1822	2162	153	40	B	M	0.0160	52.0	1.62	1306	9.1	29.4	0.92	46	12.9	2.5	0.08	5	14.5	0.3	0.01
30	37	3017	8.4	7.9	8.4	10.1	10.7	1.36	3.5	4.7	0.42	1.52	16.5	111	1.82	0.181	0.170	5.7	0.19	2099	2162	172	46	B	M	0.0246	74.3	2.00	1750	9.7	53.1	1.43	191	13.3	12.1	0.33	40	14.8	2.8	0.08
35	42	2785	9.4	8.9	9.5	11.2	11.9	1.48	3.7	5.6	0.40	1.80	19.5	110	1.89	0.169	0.159	6.3	0.23	2339	2162	186	50	C	M	0.0351	97.7	2.32	1965	10.4	78.4	1.86	423	13.6	31.1	0.74	140	15.1	11.4	0.27
40	47	2562	10.5	9.9	10.4	12.3	13.1	1.59	3.9	6.3	0.38	2.10	22.0	108	1.98	0.161	0.151	6.8	0.26	2541	2162	196	54	C	M	0.0473	121.1	2.57	2027	11.1	103.7	2.20	670	14.0	56.5	1.20	297	15.4	27.5	0.58
45	52	2354	11.4	10.9	11.3	13.2	14.1	1.70	4.1	7.0	0.36	2.40	24.2	107	2.06	0.156	0.146	7.2	0.29	2706	2162	204	57	C	M	0.0610	143.7	2.76	2000	11.9	127.9	2.45	881	14.5	84.7	1.63	476	15.8	49.7	0.95
50	57	2162	12.4	11.8	12.1	14.1	15.0	1.81	4.3	7.7	0.35	2.71	26.1	106	2.15	0.152	0.143	7.4	0.31	2840	2162	208	59	C	M	0.0763	164.9	2.89	1923	12.6	150.5	2.64	1033	15.0	112.6	1.97	643	16.2	75.3	1.32
55	62	1986	13.3	12.7	12.9	14.9	15.8	1.91	4.4	8.3	0.34	3.03	27.6	104	2.24	0.151	0.142	7.6	0.33	2945	2162	210	60	C	M	0.0928	184.3	2.97	1822	13.4	171.1	2.76	1128	15.5	138.6	2.23	776	16.6	101.5	1.63
60	67	1828	14.2	13.6	13.6	15.6	16.6	2.01	4.6	8.8	0.34	3.36	28.9	103	2.34	0.150	0.141	7.7	0.35	3027	2162	211	61	C	M	0.1105	202.0	3.01	1714	14.1	189.7	2.83	1176	16.0	162.0	2.41	872	17.0	126.7	1.89
65	72	1687	15.0	14.4	14.3	16.3	17.3	2.11	4.7	9.3	0.33	3.68	29.9	102	2.43	0.149	0.141	7.7	0.36	3090	2162	210	62	C	M	0.1293	218.1	3.02	1606	14.8	206.5	2.86	1190	16.5	182.8	2.54	934	17.5	150.1	2.08
70	77	1560	15.8	15.2	14.9	16.9	17.9	2.20	4.9	9.8	0.33	4.01	30.7	100	2.53	0.150	0.141	7.7	0.38	3136	2162	209	63	C	M	0.1488	232.2	3.01	1502	15.6	221.4	2.87	1179	17.1	200.9	2.61	967	18.0	171.1	2.22
75	82	1446	16.6	16.0	15.5	17.5	18.5	2.29	5.0	10.2	0.33	4.34	31.3	99	2.63	0.150	0.142	7.7	0.38	3170	2162	207	63	C	M	0.1692	244.7	2.98	1403	16.3	234.4	2.85	1152	17.6	216.5	2.64	977	18.5	189.6	2.31
80	87	1345	17.4	16.7	16.0	18.0	19.1	2.37	5.2	10.6	0.32	4.66	31.8	98	2.73	0.151	0.143	7.6	0.39	3193	2162	204	63	C	M	0.1901	255.7	2.94	1313	17.0	245.9	2.82	1116	18.2	230.0	2.64	973	18.9	205.9	2.36
85	92	1254	18.1	17.4	16.5	18.5	19.6	2.46	5.3	10.9	0.32	4.99	32.2	97	2.82	0.153	0.144	7.6	0.40	3209	2162	201	63	C	M	0.2115	265.2	2.88	1230	17.6	255.8	2.78	1074	18.7	241.6	2.62	956	19.4	219.8	2.39
90	97	1174	18.8	18.1	16.9	19.0	20.0	2.54	5.5	11.3	0.32	5.31	32.6	96	2.92	0.154	0.146	7.5	0.40	3218	2162	198	62	C	M	0.2332	273.8	2.82	1156	18.3	264.7	2.73	1031	19.3	251.8	2.59	934	19.9	232.2	2.39
95	102	1101	19.5	18.8	17.4	19.4	20.4	2.61	5.6	11.5	0.32	5.64	32.8	95	3.01	0.155	0.147	7.4	0.41	3223	2162	195	62	C	M	0.2552	281.0	2.75	1087	18.9	272.2	2.67	987	19.8	260.3	2.55	907	20.4	242.6	2.38
100	107	1036	20.1	19.4	17.8	19.8	20.8	2.69	5.7	11.8	0.32	5.95	32.9	93	3.11	0.157	0.149	7.3	0.41	3224	2162	192	62	C	M	0.2773	287.3	2.68	1025	19.6	278.8	2.60	944	20.4	267.7	2.50	877	20.9	251.6	2.35
105	112	978	20.7	20.0	18.2	20.1	21.2	2.76	5.8	12.0	0.32	6.27	33.1	92	3.20	0.159	0.151	7.3	0.41	3223	2162	189	61	C	M	0.2995	292.9	2.61	969	20.2	284.6	2.54	903	20.9	274.2	2.45	847	21.4	259.5	2.31
110	117	926	21.4	20.6	18.5	20.5	21.5	2.82	6.0	12.3	0.32	6.58	33.2	91	3.29	0.160	0.153	7.2	0.41	3220	2162	186	61	C	M	0.3216	297.8	2.54	919	20.7	289.7	2.47	864	21.4	279.8	2.39	817	21.9	266.4	2.27
115	122	878	21.9	21.2	18.9	20.8	21.9	2.89	6.1	12.4	0.32	6.89	33.2	90	3.37	0.162	0.154	7.1	0.41	3215	2162	183	60	C	M	0.3435	301.6	2.47	873	21.3	293.8	2.41	827	21.9	284.4	2.33	787	22.4	272.0	2.23
120	127	835	22.5	21.8	19.2	21.1	22.2	2.95	6.2	12.6	0.32	7.19	33.3	89	3.46	0.164	0.156	7.0	0.42	3210	2162	181	60	C	M	0.3654	305.1	2.40	831	21.8	297.4	2.34	792	22.4	288.3	2.27	759	22.8	277.0	2.18
125	132	797	23.1	22.3	19.5	21.4	22.4	3.02	6.3	12.8	0.33	7.49	33.3	88	3.54	0.166	0.158	6.9	0.42	3204	2162	178	60	C	M	0.3870	308.4	2.33	793	22.4	300.8	2.28	761	22.9	292.1	2.21	732	23.3	281.6	2.13
130	137	761	23.6	22.8	19.7	21.6	22.7	3.07	6.4	12.9	0.33	7.78	33.2	87	3.62	0.167	0.160	6.8	0.42	3198	2162	176	59	C	M	0.4083	310.7	2.27	758	22.9	303.3	2.21	731	23.4	294.9	2.15	706	23.7	285.1	2.08
135	142	729	24.1	23.3	20.0	21.9	22.9	3.13	6.5	13.0	0.33	8.07	33.2	86	3.70	0.169	0.161	6.8	0.42	3192	2162	173	59	C	M	0.4294	313.0	2.20	727	23.4	305.7	2.15	703	23.8	297.4	2.09	682	24.2	288.4	2.03
140	147	700	24.6	23.8	20.3	22.1	23.2	3.19	6.6	13.1	0.33	8.36	33.2	85	3.78	0.171	0.163	6.7	0.42	3187	2162	171	58	C	M	0.4500	315.0	2.14	698	23.9	307.8	2.09	678	24.3	299.8	2.04	659	24.6	291.2	1.98
145	152	673	25.1	24.3	20.5	22.4	23.4	3.24	6.6	13.2	0.33	8.64	33.2	85	3.85	0.172	0.165	6.6	0.42	3182	2162	169	58	C	M	0.4703	316.5	2.08	671	24.3	309.4	2.03	654	24.7	301.5	1.98	637	25.0	293.5	1.93
150	157	648	25.5	24.8	20.7	22.6	23.6	3.29	6.7	13.3	0.33	8.91	33.2	84	3.93	0.174	0.167	6.6	0.42	3178	2162	167	58	C	M	0.4901	317.6	2.02	647	24.8	310.6	1.98	631	25.1	302.9	1.93	617	25.4	295.4	1.88
155	162	626	26.0	25.2	20.9	22.8	23.8	3.34	6.8	13.4	0.33	9.18	33.2	83	4.00	0.176	0.168	6.5	0.42	3174	2162	165	57	C	M	0.5096	319.0	1.97	625	25.2	312.1	1.93	612	25.5	304.5	1.88	599	25.8	297.4	1.83
160	167	605	26.4	25.6	21.2	23.0	24.0	3.39	6.9	13.4	0.34	9.44	33.2	82	4.07	0.177	0.170	6.5	0.42	3171	2162	163	57	C	M	0.5286	319.8	1.91	604	25.7	313.0	1.87	592	26.0	305.5	1.83	581	26.2	298.8	1.79
165	172	586	26.8	26.0	21.3	23.1	24.1	3.44	7.0	13.5	0.34	9.71	33.2	81	4.13	0.179	0.171	6.4	0.42	3168	2162	161	57	C	M	0.5473	320.7	1.86	585	26.1	313.9	1.82	575	26.4	306.5	1.78	565	26.6	300.1	1.74
170	177	568	27.3	26.5	21.5	23.3	24.3	3.48	7.0	13.5	0.34	9.96	33.1	80	4.20	0.180	0.173	6.3	0.42	3166	2162	160	57	C	M	0.5653	321.1	1.81	567	26.5	314.4	1.78	558	26.7	307.1	1.73	549	27.0	301.0	1.70
175	182	552	27.7	26.8	21.7	23.5	24.5	3.53	7.1	13.6	0.34	10.21	33.1	80	4.26	0.181	0.174	6.3	0.42	3165	2162	158	56	C	M	0.5832	321.9	1.77	552	26.8	315.2	1.73	543	27.1	308.0	1.69	535	27.3	302.2	1.66
180	187	537	28.0	27.2	21.9	23.6	24.6	3.57	7.1	13.6	0.34	10.46	33.2	79	4.32	0.183	0.175	6.3	0.42	3165	2162	157	56	C	M	0.6004	322.4	1.72	537	27.2	315.8	1.69	529	27.5	308.6	1.65	522	27.7	303.1	1.62

Table A67. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

SI = 15 m Initial Density = 5000 stems/ha

Utilization standard (Util. std.) = 0/0 (total volume)

Bh age	Total age	N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA
5	12	4932	1.6	1.5	2.2	2.8	2.9	0.71	1.6	0.5	0.76	0.40
10	17	4774	3.1	2.9	3.5	4.4	4.6	0.82	2.2	1.1	0.64	0.54
15	22	4544	4.4	4.2	4.8	5.9	6.3	0.95	2.6	2.0	0.55	0.72
20	27	4264	5.7	5.4	6.0	7.4	7.9	1.07	2.9	2.9	0.49	0.93
25	32	3956	6.9	6.5	7.2	8.8	9.4	1.19	3.1	3.8	0.44	1.17
30	37	3640	8.0	7.5	8.3	10.0	10.7	1.31	3.3	4.7	0.41	1.42
35	42	3331	9.0	8.5	9.3	11.2	11.9	1.43	3.5	5.5	0.38	1.69
40	47	3039	10.0	9.5	10.3	12.2	13.1	1.54	3.7	6.3	0.37	1.96
45	52	2769	11.0	10.4	11.1	13.2	14.1	1.65	3.9	7.0	0.35	2.25
50	57	2524	11.9	11.3	12.0	14.1	15.0	1.75	4.1	7.6	0.34	2.55
55	62	2303	12.8	12.2	12.7	14.8	15.8	1.85	4.2	8.2	0.33	2.85
60	67	2106	13.6	13.1	13.4	15.6	16.6	1.95	4.4	8.8	0.33	3.16
65	72	1930	14.5	13.9	14.1	16.2	17.3	2.05	4.5	9.3	0.32	3.47
70	77	1775	15.3	14.7	14.7	16.9	17.9	2.14	4.7	9.7	0.32	3.79
75	82	1637	16.1	15.4	15.2	17.4	18.5	2.23	4.8	10.1	0.32	4.10
80	87	1515	16.8	16.1	15.8	18.0	19.1	2.31	5.0	10.5	0.32	4.42
85	92	1407	17.5	16.9	16.2	18.4	19.6	2.39	5.1	10.9	0.32	4.73
90	97	1311	18.2	17.5	16.7	18.9	20.0	2.47	5.3	11.2	0.32	5.05
95	102	1225	18.9	18.2	17.1	19.3	20.4	2.55	5.4	11.5	0.32	5.36
100	107	1149	19.5	18.8	17.5	19.7	20.8	2.62	5.5	11.7	0.32	5.67
105	112	1080	20.2	19.5	17.9	20.1	21.2	2.69	5.6	12.0	0.32	5.98
110	117	1019	20.8	20.1	18.3	20.4	21.5	2.76	5.8	12.2	0.32	6.28
115	122	964	21.4	20.6	18.6	20.7	21.9	2.83	5.9	12.4	0.32	6.58
120	127	914	21.9	21.2	18.9	21.0	22.2	2.89	6.0	12.6	0.32	6.88
125	132	869	22.5	21.7	19.2	21.3	22.4	2.95	6.1	12.7	0.32	7.17
130	137	828	23.0	22.3	19.5	21.6	22.7	3.01	6.2	12.8	0.32	7.46
135	142	791	23.5	22.8	19.8	21.8	22.9	3.07	6.3	13.0	0.32	7.75
140	147	757	24.0	23.3	20.0	22.0	23.2	3.12	6.4	13.1	0.32	8.03
145	152	727	24.5	23.7	20.2	22.3	23.4	3.18	6.5	13.2	0.33	8.30
150	157	698	25.0	24.2	20.5	22.5	23.6	3.23	6.6	13.3	0.33	8.57
155	162	673	25.4	24.6	20.7	22.7	23.8	3.28	6.6	13.3	0.33	8.84
160	167	649	25.9	25.1	20.9	22.9	24.0	3.33	6.7	13.4	0.33	9.10
165	172	627	26.3	25.5	21.1	23.0	24.1	3.38	6.8	13.4	0.33	9.36
170	177	607	26.7	25.9	21.3	23.2	24.3	3.42	6.9	13.5	0.33	9.61
175	182	588	27.1	26.3	21.4	23.4	24.5	3.47	6.9	13.5	0.34	9.86
180	187	571	27.5	26.7	21.6	23.5	24.6	3.51	7.0	13.5	0.34	10.11

Bh age	Total age	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai
5	12	1.0	167	1.42	0.516	0.493	0.8	0.01	704	2524	43	19	A	M	0.0002	1.1	0.09
10	17	3.6	129	1.45	0.332	0.315	2.0	0.04	1026	2524	81	26	A	M	0.0014	6.5	0.38
15	22	7.1	121	1.48	0.250	0.236	3.3	0.08	1383	2524	117	33	B	M	0.0039	17.9	0.81
20	27	10.9	117	1.53	0.207	0.194	4.6	0.12	1738	2524	149	40	B	M	0.0082	34.9	1.29
25	32	14.6	115	1.59	0.181	0.170	5.6	0.17	2068	2524	175	46	B	M	0.0142	56.1	1.75
30	37	18.1	114	1.66	0.165	0.155	6.4	0.21	2359	2524	195	52	C	M	0.0219	79.8	2.15
35	42	21.2	112	1.73	0.155	0.145	7.1	0.25	2605	2524	210	56	C	M	0.0314	104.5	2.48
40	47	23.9	110	1.81	0.148	0.139	7.6	0.29	2808	2524	220	60	C	M	0.0424	129.0	2.74
45	52	26.2	109	1.90	0.144	0.135	7.9	0.32	2970	2524	226	62	C	M	0.0550	152.4	2.92
50	57	28.1	107	1.99	0.142	0.133	8.1	0.34	3096	2524	230	64	C	M	0.0691	174.4	3.05
55	62	29.6	106	2.08	0.140	0.132	8.3	0.36	3193	2524	231	66	C	M	0.0844	194.4	3.13
60	67	30.8	105	2.18	0.140	0.131	8.3	0.38	3265	2524	231	67	C	M	0.1009	212.6	3.17
65	72	31.8	103	2.28	0.140	0.132	8.4	0.39	3317	2524	229	67	C	M	0.1184	228.6	3.17
70	77	32.5	102	2.37	0.141	0.132	8.3	0.40	3353	2524	227	67	C	M	0.1369	243.0	3.15
75	82	33.1	101	2.47	0.142	0.133	8.3	0.41	3376	2524	223	67	C	M	0.1561	255.5	3.11
80	87	33.6	99	2.57	0.143	0.135	8.2	0.41	3390	2524	220	67	C	M	0.1759	266.5	3.06
85	92	33.9	98	2.67	0.145	0.136	8.1	0.42	3395	2524	216	67	C	M	0.1962	276.1	3.00
90	97	34.2	97	2.76	0.146	0.138	8.0	0.42	3395	2524	212	66	C	M	0.2169	284.4	2.93
95	102	34.3	96	2.86	0.148	0.140	7.9	0.43	3391	2524	209	66	C	M	0.2380	291.5	2.85
100	107	34.4	95	2.95	0.150	0.142	7.8	0.43	3383	2524	205	65	C	M	0.2591	297.7	2.78
105	112	34.5	94	3.04	0.152	0.144	7.7	0.43	3374	2524	201	65	C	M	0.2804	302.8	2.70
110	117	34.5	93	3.13	0.154	0.145	7.6	0.43	3363	2524	198	64	C	M	0.3017	307.4	2.63
115	122	34.5	92	3.22	0.155	0.147	7.5	0.43	3351	2524	194	63	C	M	0.3229	311.3	2.55
120	127	34.5	90	3.31	0.157	0.149	7.4	0.43	3338	2524	191	63	C	M	0.3441	314.5	2.47
125	132	34.5	89	3.39	0.159	0.151	7.3	0.43	3326	2524	188	62	C	M	0.3651	317.3	2.40
130	137	34.4	88	3.48	0.161	0.153	7.2	0.43	3314	2524	185	62	C	M	0.3859	319.5	2.33
135	142	34.4	88	3.56	0.163	0.155	7.1	0.43	3302	2524	182	61	C	M	0.4063	321.4	2.26
140	147	34.3	87	3.63	0.165	0.157	7.0	0.43	3291	2524	179	61	C	M	0.4266	322.9	2.20
145	152	34.3	86	3.71	0.167	0.159	6.9	0.43	3281	2524	177	60	C	M	0.4464	324.5	2.13
150	157	34.2	85	3.79	0.168	0.160	6.8	0.43	3272	2524	174	60	C	M	0.4659	325.2	2.07
155	162	34.1	84	3.85	0.170	0.162	6.8	0.43	3263	2524	172	59	C	M	0.4851	326.5	2.01
160	167	34.1	83	3.93	0.172	0.164	6.7	0.43	3255	2524	170	59	C	M	0.5039	327.0	1.96
165	172	34.0	82	3.99	0.173	0.165	6.6	0.43	3249	2524	168	59	C	M	0.5222	327.4	1.90
170	177	34.0	81	4.06	0.175	0.167	6.6	0.43	3243	2524	166	58	C	M	0.5400	327.8	1.85
175	182	33.9	80	4.12	0.176	0.169	6.5	0.43	3238	2524	164	58	C	M	0.5577	327.9	1.80
180	187	33.9	80	4.18	0.178	0.170	6.5	0.43	3234	2524	162	58	C	M	0.5746	328.1	1.75

Bh age	Total age	Util. std. = 8/6 N	D	V/ha	Mai	Util. std. = 13/7 N	D	V/ha	Mai	Util. std = 15/10 N	D	V/ha	Mai
5	12	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	53	8.3	0.6	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	586	8.5	9.1	0.34	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	32	1363	9.0	28.4	0.88	28	12.8	1.5	0.05	2	14.3	0.1	0.00
30	37	1926	9.5	53.7	1.45	147	13.1	9.1	0.25	24	14.7	1.7	0.05
35	42	2217	10.1	80.9	1.92	373	13.4	26.5	0.63	104	15.0	8.2	0.19
40	47	2312	10.8	107.9	2.29	642	13.8	52.0	1.10	251	15.3	22.4	0.48
45	52	2288	11.5	133.6	2.56	887	14.2	81.4	1.56	437	15.6	43.8	0.84
50	57	2201	12.2	157.4	2.76	1074	14.7	111.3	1.95	622	15.9	69.6	1.22
55	62	2083	12.9	179.0	2.88	1198	15.1	139.4	2.24	780	16.3	97.1	1.56
60	67	1953	13.6	198.4	2.96	1266	15.6	164.7	2.45	899	16.7	124.1	1.85
65	72	1822	14.4	215.5	2.99	1290	16.2	186.9	2.59	978	17.2	149.0	2.07
70	77	1697	15.1	230.8	2.99	1285	16.7	206.2	2.67	1025	17.6	171.7	2.23
75	82	1580	15.8	244.0	2.97	1260	17.2	222.8	2.71	1044	18.1	191.5	2.33
80	87	1473	16.4	255.6	2.93	1222	17.7	237.1	2.72	1045	18.6	208.9	2.40
85	92	1376	17.1	265.7	2.88	1177	18.3	249.2	2.71	1032	19.0	224.0	2.43
90	97	1287	17.8	274.5	2.83	1130	18.8	259.7	2.67	1009	19.5	236.9	2.44
95	102	1207	18.4	281.9	2.76	1080	19.4	268.5	2.63	981	20.0	248.0	2.43
100	107	1135	19.0	288.5	2.69	1032	19.9	276.1	2.58	950	20.5	257.6	2.41
105	112	1069	19.6	293.9	2.62	985	20.4	282.4	2.52	917	20.9	265.7	2.37
110	117	1010	20.2	298.8	2.55	942	20.9	288.0	2.46	884	21.4	272.7	2.33
115	122	957	20.7	302.9	2.48	900	21.4	292.7	2.40	851	21.9	278.7	2.28
120	127	908	21.3	306.3	2.41	861	21.9	296.6	2.33	820	22.3	283.8	2.23
125	132	864	21.8	309.3	2.34	824	22.4	299.9	2.27	789	22.8	288.0	2.18
130	137	824	22.3	311.6	2.27	790	22.9	302.6	2.21	760	23.2	291.6	2.13
135	142	788	22.8	313.7	2.21	759	23.3	305.0	2.15	733	23.7	294.8	2.07
140	147	754	23.3	315.3	2.14	730	23.7	306.8	2.09	707	24.1	297.3	2.02
145	152	725	23.8	317.1	2.08	703	24.2	308.8	2.03	684	24.5	299.9	1.97
150	157	696	24.2	317.9	2.02	678	24.6	309.8	1.97	660	24.9	301.4	1.92
155	162	672	24.7	319.2	1.97	655	25.0	311.2	1.92	640	25.3	303.4	1.87
160	167	648	25.1	319.9	1.91	634	25.4	312.1	1.87	620	25.7	304.6	1.82
165	172	626	25.5	320.4	1.86	613	25.8	312.6	1.82	601	26.1	305.6	1.78
170	177	606	25.9	320.9	1.81	595	26.2	313.3	1.77	584	26.5	306.6	1.73
175	182	587	26.3	321.0	1.76	577	26.6	313.4	1.72	568	26.8	307.2	1.69
180	187	570	26.7	321.3	1.72	562	26.9	313.9	1.68	553	27.2	307.9	1.65

SI = 15 m Initial Density = 6000 stems/ha

Bh age	Total age	N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA
5	12	5911	1.5	1.4	2.2	2.8	2.9	0.70	1.5	0.5	0.75	0.39
10	17	5703	3.0	2.8	3.5	4.3	4.6	0.81	2.1	1.2	0.63	0.52
15	22	5401	4.3	4.0	4.7	5.9	6.3	0.93	2.5	2.0	0.54	0.69
20	27	5037	5.5	5.1	5.9	7.4	7.9	1.05	2.8	2.9	0.48	0.89
25	32	4642	6.6	6.2	7.1	8.7	9.4	1.16	3.0	3.8	0.43	1.11
30	37	4241	7.6	7.2	8.2	10.0	10.7	1.28	3.2	4.7	0.40	1.35
35	42	3854	8.7	8.2	9.2	11.1	11.9	1.39	3.4	5.5	0.37	1.60
40	47	3493	9.6	9.2	10.1	12.2	13.1	1.50	3.6	6.2	0.36	1.86
45	52	3162	10.6	10.1	11.0	13.1	14.1	1.61	3.7	6.9	0.34	2.14
50	57	2864	11.5	11.0	11.8	14.0	15.0	1.71	3.9	7.6	0.33	2.42
55	62	2599	12.4	11.8	12.5	14.8	15.8	1.81	4.1	8.2	0.33	2.71
60	67	2365	13.2	12.6	13.2	15.5	16.6	1.90	4.2	8.7	0.32	3.00
65	72	2158	14.0	13.4	13.9	16.2	17.3	2.00	4.4	9.2	0.32	3.31
70	77	1975	14.8	14.2	14.5	16.8	17.9	2.09	4.5	9.7	0.31	3.61
75	82	1815	15.6	15.0	15.0	17.4	18.5	2.17	4.7	10.1	0.31	3.91
80	87	1673	16.3	15.7	15.6	17.9	19.1	2.26	4.8	10.5	0.31	4.22
85	92	1548	17.0	16.4	16.0	18.4	19.6	2.34	5.0	10.8	0.31	4.53
90	97	1438	17.7	17.1	16.5	18.8	20.0	2.42	5.1	11.1	0.31	4.83
95	102	1340	18.4	17.7	16.9	19.2	20.4	2.49	5.2	11.4	0.31	5.14
100	107	1252	19.1	18.4	17.3	19.6	20.8	2.57	5.4	11.7	0.31	5.44
105	112	1175	19.7	19.0	17.7	20.0	21.2	2.64	5.5	11.9	0.31	5.74
110	117	1105	20.3	19.6	18.0	20.3	21.5	2.70	5.6	12.1	0.31	6.04
115	122	1043	20.9	20.1	18.4	20.6	21.9	2.77	5.7	12.3	0.31	6.33
120	127	986	21.4	20.7	18.7	20.9	22.2	2.83	5.8	12.5	0.31	6.62
125	132	936	22.0	21.2	19.0	21.2	22.4	2.90	5.9	12.7	0.32	6.91
130	137	890	22.5	21.8	19.3	21.5	22.7	2.95	6.1	12.8	0.32	7.19
135	142	848	23.0	22.3	19.5	21.7	22.9	3.01	6.2	12.9	0.32	7.47
140	147	811	23.5	22.8	19.8	22.0	23.2	3.07	6.2	13.0	0.32	7.75
145	152	776	24.0	23.2	20.0	22.2	23.4	3.12	6.3	13.1	0.32	8.02
150	157	745	24.5	23.7	20.2	22.4	23.6	3.17	6.4	13.2	0.32	8.29
155	162	716	24.9	24.1	20.4	22.6	23.8	3.22	6.5	13.3	0.33	8.55
160	167	690	25.4	24.6	20.6	22.8	24.0	3.27	6.6	13.4	0.33	8.81
165	172	665	25.8	25.0	20.8	23.0	24.1	3.32	6.7	13.4	0.33	9.07
170	177	643	26.2	25.4	21.0	23.1	24.3	3.37	6.7	13.4	0.33	9.32
175	182	622	26.6	25.8	21.2	23.3	24.5	3.41	6.8	13.5	0.33	9.56
180	187	603	27.0	26.2	21.4	23.4	24.6	3.46	6.9	13.5	0.33	9.81

Bh age	Total age	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai
5	12	1.0	174	1.30	0.472	0.451	0.8	0.01	828	2864	49	23	A	M	0.0002	1.1	0.09
10	17	3.9	133	1.32	0.304	0.288	2.3	0.04	1181	2864	91	30	A	M	0.0012	7.0	0.41
15	22	7.7	124	1.36	0.230	0.217	3.7	0.09	1567	2864	132	37	B	M	0.0035	19.1	0.86
20	27	11.8	120	1.41	0.191	0.179	5.0	0.14	1947	2864	166	45	B	M	0.0074	37.1	1.37
25	32	15.8	118	1.47	0.168	0.157	6.2	0.19	2293	2864	194	51	C	M	0.0128	59.4	1.85
30	37	19.5	116	1.54	0.154	0.143	7.0	0.23	2594	2864	215	57	C	M	0.0199	84.3	2.27
35	42	22.7	114	1.61	0.145	0.135	7.7	0.27	2843	2864	231	62	C	M	0.0285	110.0	2.61
40	47	25.5	112	1.69	0.139	0.130	8.2	0.31	3044	2864	241	65	C	M	0.0388	135.5	2.88
45	52	27.8	111	1.78	0.135	0.126	8.6	0.34	3202	2864	247	68	C	M	0.0505	159.7	3.07
50	57	29.7	109	1.87	0.133	0.125	8.8	0.36	3322	2864	249	69	C	M	0.0636	182.1	3.19
55	62	31.3	108	1.96	0.133	0.124	8.9	0.38	3410	2864	250	70	D	M	0.0780	202.6	3.26
60	67	32.5	106	2.06	0.132	0.124	8.9	0.40	3473	2864	248	71	D	M	0.0934	221.0	3.29
65	72	33.4	105	2.15	0.133	0.124	8.9	0.41	3515	2864	246	71	D	M	0.1100	237.4	3.29
70	77	34.1	103	2.25	0.134	0.125	8.9	0.42	3542	2864	242	71	D	M	0.1274	251.7	3.26
75	82	34.7	102	2.35	0.135	0.127	8.8	0.43	3555	2864	238	71	D	M	0.1457	264.4	3.22
80	87	35.1	101	2.44	0.137	0.128	8.7	0.43	3560	2864	234	71	D	M	0.1646	275.3	3.16
85	92	35.3	99	2.54	0.138	0.130	8.6	0.44	3557	2864	229	70	D	M	0.1839	284.7	3.09
90	97	35.5	98	2.64	0.140	0.132	8.4	0.44	3548	2864	225	69	C	M	0.2038	293.0	3.02
95	102	35.7	97	2.73	0.142	0.134	8.3	0.44	3536	2864	220	69	C	M	0.2240	300.1	2.94
100	107	35.7	96	2.83	0.144	0.136	8.2	0.45	3521	2864	216	68	C	M	0.2443	305.9	2.86
105	112	35.7	95	2.92	0.146	0.138	8.1	0.45	3505	2864	212	67	C	M	0.2649	311.2	2.78
110	117	35.7	94	3.01	0.148	0.140	7.9	0.45	3487	2864	207	67	C	M	0.2854	315.4	2.69
115	122	35.7	93	3.10	0.150	0.142	7.8	0.45	3469	2864	203	66	C	M	0.3060	319.2	2.61
120	127	35.6	91	3.18	0.152	0.144	7.7	0.45	3451	2864	200	65	C	M	0.3266	322.0	2.53
125	132	35.5	90	3.27	0.154	0.146	7.6	0.45	3433	2864	196	65	C	M	0.3469	324.7	2.46
130	137	35.4	89	3.35	0.156	0.148	7.5	0.44	3415	2864	193	64	C	M	0.3672	326.8	2.38
135	142	35.3	88	3.43	0.158	0.150	7.4	0.44	3399	2864	189	63	C	M	0.3871	328.3	2.31
140	147	35.2	88	3.51	0.160	0.152	7.3	0.44	3383	2864	186	63	C	M	0.4069	330.0	2.24
145	152	35.1	87	3.59	0.162	0.153	7.2	0.44	3368	2864	183	62	C	M	0.4263	330.8	2.17
150	157	35.0	86	3.66	0.164	0.155	7.1	0.44	3354	2864	181	62	C	M	0.4455	331.9	2.11
155	162	34.9	85	3.74	0.165	0.157	7.0	0.44	3342	2864	178	61	C	M	0.4642	332.4	2.05
160	167	34.9	84	3.81	0.167	0.159	6.9	0.44	3330	2864	176	61	C	M	0.4828	333.1	1.99
165	172	34.7	83	3.88	0.169	0.161	6.8	0.44	3320	2864	173	60	C	M	0.5008	333.0	1.93
170	177	34.7	82	3.94	0.171	0.162	6.8	0.44	3310	2864	171	60	C	M	0.5185	333.4	1.88
175	182	34.6	81	4.01	0.172	0.164	6.7	0.44	3302	2864	169	59	C	M	0.5359	333.3	1.83
180	187	34.5	80	4.07	0.174	0.165	6.6	0.44	3295	2864	167	59	C	M	0.5527	333.3	1.78

Bh age	Total age	Util. std. = 8/6 N	D	V/ha	Mai	Util. std. = 13/7 N	D	V/ha	Mai	Util. std = 15/10 N	D	V/ha	Mai
5	12	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	34	8.3	0.4	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	529	8.4	7.8	0.29	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	32	1383	8.8	27.2	0.85	17	12.8	0.9	0.03	0	0.0	0.0	0.00
30	37	2057	9.3	53.5	1.44	113	13.0	6.9	0.19	15	14.6	1.0	0.03
35	42	2425	9.9	82.3	1.95	324	13.3	22.4	0.53	77	14.9	5.9	0.14
40	47	2559	10.5	110.9	2.35	603	13.7	47.3	1.00	210	15.1	18.2	0.39
45	52	2546	11.2	137.9	2.65	874	14.0	77.4	1.49	395	15.4	38.3	0.74
50	57	2451	11.9	162.7	2.85	1092	14.5	108.7	1.90	592	15.8	64.0	1.12
55	62	2318	12.6	185.1	2.98	1243	14.9	138.5	2.23	769	16.1	92.2	1.48
60	67	2171	13.3	205.2	3.06	1332	15.4	165.6	2.47	908	16.5	120.3	1.79
65	72	2021	14.0	222.8	3.09	1371	15.9	189.3	2.63	1006	16.9	146.8	2.04
70	77	1877	14.7	238.2	3.09	1373	16.4	209.7	2.72	1066	17.4	170.7	2.21
75	82	1744	15.4	251.8	3.07	1352	16.9	227.4	2.77	1096	17.8	191.9	2.34
80	87	1620	16.0	263.4	3.02	1314	17.4	242.3	2.78	1103	18.3	210.4	2.42
85	92	1509	16.7	273.5	2.97	1267	17.9	254.9	2.77	1093	18.7	226.3	2.46
90	97	1408	17.3	282.3	2.91	1216	18.5	265.8	2.74	1073	19.2	240.1	2.47
95	102	1317	17.9	289.9	2.84	1163	19.0	274.9	2.69	1045	19.6	251.8	2.47
100	107	1234	18.5	296.1	2.76	1110	19.5	282.4	2.64	1012	20.1	261.6	2.44
105	112	1161	19.1	301.7	2.69	1060	20.0	289.1	2.58	978	20.6	270.3	2.41
110	117	1094	19.7	306.3	2.62	1011	20.5	294.5	2.51	943	21.0	277.5	2.37
115	122	1034	20.3	310.3	2.54	966	21.0	299.3	2.45	908	21.5	283.7	2.32
120	127	979	20.8	313.3	2.46	922	21.5	302.9	2.38	873	21.9	288.6	2.27
125	132	930	21.3	316.3	2.39	882	21.9	306.3	2.32	841	22.4	293.2	2.22
130	137	885	21.9	318.5	2.32	845	22.4	309.0	2.25	809	22.8	296.9	2.17
135	142	844	22.3	320.3	2.25	810	22.9	311.0	2.19	779	23.3	299.8	2.11
140	147	808	22.8	322.1	2.19	778	23.3	313.1	2.13	751	23.7	302.7	2.06
145	152	773	23.3	323.1	2.12	748	23.7	314.4	2.07	725	24.1	304.7	2.00
150	157	743	23.7	324.3	2.06	721	24.2	315.8	2.01	700	24.5	306.7	1.95
155	162	714	24.2	324.9	2.00	695	24.6	316.6	1.95	677	24.9	308.1	1.90
160	167	688	24.6	325.7	1.95	672	25.0	317.6	1.90	656	25.3	309.5	1.85
165	172	664	25.0	325.8	1.89	649	25.4	317.8	1.85	635	25.7	310.2	1.80
170	177	642	25.4	326.2	1.84	629	25.8	318.4	1.80	616	26.0	311.1	1.76
175	182	621	25.8	326.2	1.79	609	26.2	318.4	1.75	598	26.4	311.6	1.71
180	187	602	26.2	326.3	1.74	592	26.5	318.6	1.70	582	26.7	312.1	1.67

Table A68. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
																SI = 15 m Initial Density = 7000 stems/ha																								
5	12	6888	1.4	1.3	2.2	2.8	2.9	0.70	1.5	0.5	0.74	0.38	1.1	180	1.20	0.438	0.418	0.9	0.01	950	3189	55	27	A	M	0.0002	1.2	0.10	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	6627	2.8	2.6	3.4	4.3	4.6	0.80	2.0	1.2	0.62	0.51	4.2	136	1.23	0.283	0.267	2.5	0.05	1331	3189	102	34	B	M	0.0011	7.3	0.43	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	6250	4.1	3.8	4.7	5.9	6.3	0.91	2.4	2.0	0.53	0.67	8.2	126	1.26	0.214	0.201	4.1	0.09	1743	3189	146	42	B	M	0.0032	20.1	0.91	22	8.2	0.3	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	5798	5.3	4.9	5.9	7.4	7.9	1.03	2.7	2.9	0.47	0.85	12.6	122	1.31	0.178	0.167	5.5	0.15	2143	3189	183	50	B	M	0.0067	39.0	1.44	469	8.4	6.7	0.25	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	32	5312	6.3	6.0	7.0	8.7	9.4	1.14	2.9	3.8	0.42	1.06	16.8	120	1.37	0.157	0.147	6.7	0.20	2503	3189	212	56	C	M	0.0117	62.3	1.94	1376	8.7	25.7	0.80	11	12.7	0.6	0.02	0	0.0	0.0	0.00
30	37	4825	7.4	7.0	8.1	10.0	10.7	1.25	3.1	4.7	0.39	1.29	20.7	117	1.44	0.144	0.134	7.6	0.25	2810	3189	235	62	C	M	0.0183	88.1	2.37	2152	9.2	52.9	1.43	86	12.9	5.1	0.14	9	14.6	0.6	0.02
35	42	4359	8.4	7.9	9.1	11.1	11.9	1.36	3.2	5.5	0.37	1.53	24.1	116	1.51	0.136	0.127	8.3	0.29	3061	3189	250	66	C	M	0.0263	114.8	2.73	2600	9.7	83.0	1.97	279	13.2	18.9	0.45	57	14.8	4.3	0.10
40	47	3928	9.3	8.9	10.0	12.2	13.1	1.47	3.4	6.2	0.35	1.78	26.9	114	1.60	0.131	0.122	8.8	0.33	3259	3189	260	70	C	M	0.0359	140.9	2.99	2775	10.3	112.9	2.40	559	13.5	42.8	0.91	174	15.0	14.8	0.31
45	52	3538	10.3	9.8	10.9	13.1	14.1	1.57	3.6	6.9	0.34	2.04	29.3	112	1.68	0.128	0.119	9.1	0.36	3411	3189	265	72	D	M	0.0468	165.7	3.18	2777	11.0	141.1	2.71	850	13.9	73.1	1.40	353	15.3	33.4	0.64
50	57	3189	11.2	10.6	11.6	14.0	15.0	1.67	3.8	7.5	0.33	2.31	31.2	110	1.77	0.127	0.118	9.3	0.38	3523	3189	267	74	D	M	0.0592	188.7	3.30	2680	11.6	166.9	2.92	1095	14.3	105.5	1.85	557	15.6	58.5	1.02
55	62	2881	12.0	11.5	12.4	14.8	15.8	1.77	3.9	8.1	0.32	2.59	32.7	109	1.86	0.126	0.118	9.4	0.40	3604	3189	266	75	D	M	0.0727	209.5	3.37	2535	12.3	190.0	3.06	1272	14.7	136.8	2.20	749	16.0	87.0	1.40
60	67	2610	12.9	12.3	13.1	15.5	16.6	1.86	4.1	8.6	0.32	2.88	33.9	107	1.96	0.126	0.118	9.5	0.42	3658	3189	264	75	D	M	0.0874	228.1	3.40	2371	13.0	210.6	3.14	1382	15.2	165.3	2.46	905	16.3	115.9	1.73
65	72	2373	13.7	13.1	13.7	16.1	17.3	1.96	4.2	9.1	0.31	3.17	34.8	106	2.05	0.127	0.119	9.4	0.43	3691	3189	261	75	D	M	0.1031	244.7	3.39	2205	13.7	228.7	3.17	1435	15.6	190.4	2.64	1020	16.7	143.6	1.99
70	77	2165	14.5	13.9	14.3	16.7	17.9	2.04	4.4	9.6	0.31	3.46	35.5	104	2.15	0.128	0.120	9.3	0.44	3709	3189	256	75	D	M	0.1197	259.2	3.36	2045	14.3	244.5	3.17	1447	16.1	212.0	2.75	1095	17.1	168.8	2.19
75	82	1982	15.2	14.6	14.9	17.3	18.5	2.13	4.5	10.0	0.31	3.76	36.0	103	2.25	0.130	0.121	9.2	0.45	3715	3189	251	74	D	M	0.1371	271.7	3.31	1895	15.0	258.1	3.14	1430	16.6	230.4	2.81	1135	17.6	191.1	2.33
80	87	1822	15.9	15.3	15.4	17.8	19.1	2.21	4.7	10.4	0.31	4.05	36.4	102	2.34	0.131	0.123	9.1	0.45	3711	3189	246	74	D	M	0.1552	282.7	3.25	1758	15.7	269.9	3.10	1394	17.1	246.1	2.83	1150	18.0	210.7	2.42
85	92	1682	16.6	16.0	15.8	18.3	19.6	2.29	4.8	10.7	0.31	4.35	36.6	100	2.44	0.133	0.125	9.0	0.46	3700	3189	241	73	D	M	0.1738	292.3	3.17	1634	16.3	280.2	3.04	1347	17.6	259.4	2.82	1146	18.4	227.7	2.47
90	97	1557	17.3	16.7	16.3	18.8	20.0	2.37	5.0	11.0	0.31	4.65	36.7	99	2.53	0.135	0.127	8.8	0.46	3684	3189	236	72	D	M	0.1928	300.2	3.09	1521	16.9	288.8	2.97	1293	18.1	270.4	2.78	1127	18.9	242.0	2.49
95	102	1448	18.0	17.3	16.7	19.2	20.4	2.45	5.1	11.3	0.31	4.95	36.8	98	2.63	0.137	0.129	8.7	0.46	3665	3189	231	72	D	M	0.2122	307.3	3.01	1420	17.6	296.4	2.90	1238	18.6	279.9	2.74	1100	19.4	254.3	2.49
100	107	1350	18.6	18.0	17.1	19.6	20.8	2.52	5.2	11.6	0.31	5.24	36.8	97	2.72	0.139	0.131	8.5	0.46	3644	3189	226	71	D	M	0.2319	313.0	2.92	1328	18.2	302.6	2.83	1182	19.1	287.7	2.69	1068	19.8	264.7	2.47
105	112	1263	19.3	18.6	17.5	19.9	21.2	2.59	5.4	11.8	0.31	5.53	36.8	96	2.81	0.141	0.133	8.4	0.46	3621	3189	221	70	C	M	0.2517	317.9	2.84	1246	18.7	307.9	2.75	1127	19.6	294.3	2.63	1032	20.3	273.5	2.44
110	117	1186	19.9	19.2	17.8	20.3	21.5	2.66	5.5	12.1	0.31	5.83	36.7	95	2.90	0.143	0.135	8.2	0.46	3598	3189	216	69	C	M	0.2717	322.2	2.75	1173	19.3	312.6	2.67	1075	20.1	299.9	2.56	995	20.7	281.0	2.40
115	122	1117	20.4	19.7	18.2	20.6	21.9	2.72	5.6	12.3	0.31	6.11	36.6	93	2.99	0.145	0.137	8.1	0.46	3574	3189	212	68	C	M	0.2917	325.8	2.67	1106	19.9	316.4	2.59	1026	20.6	304.6	2.49	958	21.2	287.4	2.35
120	127	1055	21.0	20.3	18.5	20.9	22.2	2.79	5.7	12.4	0.31	6.40	36.5	92	3.08	0.148	0.139	8.0	0.46	3551	3189	208	68	C	M	0.3116	328.7	2.59	1046	20.4	319.7	2.52	979	21.1	308.5	2.43	922	21.6	292.8	2.30
125	132	999	21.5	20.8	18.8	21.1	22.4	2.85	5.8	12.6	0.31	6.68	36.4	91	3.16	0.150	0.141	7.8	0.46	3528	3189	204	67	C	M	0.3314	331.1	2.51	992	20.9	322.3	2.44	936	21.6	311.7	2.36	887	22.0	297.3	2.25
130	137	948	22.1	21.3	19.0	21.4	22.7	2.91	5.9	12.7	0.31	6.96	36.3	90	3.25	0.152	0.143	7.7	0.46	3506	3189	200	66	C	M	0.3512	332.9	2.43	942	21.4	324.3	2.37	895	22.0	314.2	2.29	853	22.5	300.9	2.19
135	142	902	22.6	21.8	19.3	21.7	22.9	2.96	6.0	12.9	0.32	7.24	36.1	89	3.33	0.154	0.145	7.6	0.45	3485	3189	196	65	C	M	0.3706	334.3	2.35	897	21.9	325.9	2.29	857	22.5	316.2	2.23	821	22.9	304.0	2.14
140	147	861	23.1	22.3	19.5	21.9	23.2	3.02	6.1	13.0	0.32	7.51	36.0	88	3.41	0.156	0.147	7.5	0.45	3465	3189	193	65	C	M	0.3899	335.7	2.28	857	22.4	327.6	2.23	823	22.9	318.2	2.16	792	23.3	306.9	2.09
145	152	823	23.6	22.8	19.8	22.1	23.4	3.07	6.2	13.1	0.32	7.77	35.9	87	3.49	0.158	0.149	7.4	0.45	3446	3189	190	64	C	M	0.4090	336.6	2.21	820	22.9	328.6	2.16	790	23.4	319.5	2.10	763	23.7	308.9	2.03
150	157	788	24.0	23.3	20.0	22.3	23.6	3.13	6.3	13.2	0.32	8.04	35.8	86	3.56	0.160	0.151	7.3	0.45	3428	3189	187	63	C	M	0.4278	337.1	2.15	785	23.3	329.2	2.10	760	23.8	320.4	2.04	736	24.1	310.5	1.98
155	162	757	24.5	23.7	20.2	22.5	23.8	3.18	6.4	13.2	0.32	8.30	35.7	86	3.63	0.161	0.153	7.2	0.45	3412	3189	184	63	C	M	0.4462	337.8	2.08	755	23.8	330.1	2.04	732	24.2	321.4	1.98	712	24.5	312.2	1.93
160	167	728	24.9	24.2	20.4	22.7	24.0	3.23	6.5	13.3	0.32	8.56	35.5	85	3.71	0.163	0.155	7.1	0.45	3397	3189	181	62	C	M	0.4644	338.1	2.02	726	24.2	330.5	1.98	706	24.6	322.0	1.93	688	24.9	313.3	1.87
165	172	701	25.4	24.6	20.6	22.9	24.1	3.27	6.6	13.4	0.33	8.81	35.4	84	3.78	0.165	0.156	7.0	0.45	3383	3189	179	62	C	M	0.4822	338.0	1.96	699	24.6	330.5	1.92	682	25.0	322.2	1.87	666	25.3	314.1	1.83
170	177	677	25.8	25.0	20.8	23.1	24.3	3.32	6.6	13.4	0.33	9.06	35.3	83	3.84	0.167	0.158	7.0	0.45	3371	3189	176	61	C	M	0.4997	338.3	1.91	676	25.0	330.9	1.87	660	25.4	322.7	1.82	646	25.6	315.0	1.78
175	182	654	26.2	25.4	21.0	23.2	24.5	3.36	6.7	13.4	0.33	9.30	35.2	82	3.91	0.168	0.160	6.9	0.44	3360	3189	174	61	C	M	0.5167	337.9	1.86	653	25.4	330.6	1.82	639	25.8	322.6	1.77	626	26.0	315.3	1.73
180	187	633	26.6	25.8	21.1	23.4	24.6	3.41	6.8	13.5	0.33	9.54	35.1	81	3.97	0.170	0.161	6.8	0.44	3349	3189	172	60	C	M	0.5335	337.7	1.80	632	25.8	330.4	1.77	620	26.1	322.6	1.72	608	26.4	315.6	1.69
																SI = 15 m Initial Density = 7500 stems/ha																								
5	12	7376	1.4	1.3	2.2	2.7	2.9	0.70	1.5	0.5	0.74	0.38	1.1	183	1.16	0.423	0.403	1.0	0.01	1010	3346	58	28	A	M	0.0002	1.2	0.10	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	7087	2.8	2.6	3.4	4.3	4.6	0.80	2.0	1.2	0.61	0.50	4.3	138	1.19	0.274	0.258	2.6	0.05	1404	3346	107	36	B	M	0.0011	7.5	0.44	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	6671	4.0	3.8	4.6	5.9	6.3	0.90	2.3	2.0	0.52	0.66	8.5	128	1.22	0.208	0.195	4.2	0.10	1829	3346	152	44	B	M	0.0031	20.6	0.93	18	8.2	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	6175	5.2	4.9	5.8	7.4	7.9	1.02	2.6	2.9	0.46	0.84	12.9	123	1.27	0.173	0.161	5.7	0.15	2237	3346	191	52	C	M	0.0065	39.9	1.47	441	8.3	6.2	0.23	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	32	5643	6.2	5.9	7.0	8.7	9.4	1.13	2.8	3.8	0.42	1.04	17.3	120	1.33	0.153	0.142	6.9	0.21	2602	3346	221	59	C	M	0.0113	63.6	1.98	1366	8.6	25.0	0.78	8	12.7	0.4	0.01	0	0.0	0.0	0.00
30	37	5112	7.3	6.9	8.0	10.0	10.7	1.24	3.0	4.7	0.39	1.26	21.3	118	1.40	0.140	0.131	7.9	0.26	2912	3346	244	64	C	M	0.0176	89.9	2.42	2189	9.1	52.5	1.41	75	12.9	4.4	0.12	7	14.5	0.5	0.01
35	42	4606	8.3	7.8	9.0	11.1	11.9	1.35	3.2	5.4	0.36	1.49	24.7	116	1.47	0.133	0.123	8.6	0.30	3163	3346	259	69	C	M	0.0254	116.9	2.78	2676	9.6	83.1	1.97	258	13.2	17.4	0.41	49	14.7	3.7	0.09
40	47	4140	9.2	8.7	9.9	12.1	13.1	1.45	3.4	6.2	0.35	1.74	27.6	114	1.55	0.128	0.119	9.1	0.34	3360	3346	268	72	D	M	0.0346	143.4	3.04	2874	10.2	113.6	2.41	536	13.5	40.6	0.86	158	15.0	13.3	0.28
45	52	3720	10.1	9.6	10.8	13.1	14.1	1.55	3.5	6.9	0.33	2.00	30.0	113	1.64	0.125	0.116	9.4	0.37	3509	3346	274	74	D	M	0.0453	168.4	3.23	2884	10.8	142.4	2.73	835	13.8	70.9	1.36	333	15.3	31.2	0.60
50	57	3346	11.0	10.5	11.6	13.9	15.0	1.65	3.7	7.5	0.33	2.27	31.9	111	1.73	0.124	0.115	9.6	0.39	3617	3346	275	76	D	M	0.0572	191.5	3.35	2787	11.5	168.6	2.95	1092	14.2	103.7	1.82	538	15.6	55.8	0.98
55	62	3017	11.9	11.3	12.3	14.7	15.8	1.75	3.9	8.1	0.32	2.54	33.4	109	1.82	0.124	0.115	9.7	0.41	3694	3346	274	77	D	M	0.0704	212.5	3.42	2638	12.2	192.1	3.09	1281	14.6	135.6	2.18	736	15.9	84.3	1.36
60	67	2729	12.7	12.1	13.0	15.5	16.6	1.85	4.0	8.6	0.31	2.82	34.6	108	1.91	0.124	0.115	9.7	0.43	3743	3346	272	77	D	M	0.0848	231.3	3.45	2467	12.8	212.9	3.17	1401	15.1	164.8	2.46	901	16.3	113.6	1.69
65	72	2476	13.5	12.9	13.6	16.1	17.3	1.94	4.2	9.1	0.31	3.11	35.5	106	2.01	0.125	0.116	9.7	0.44	3773	3346	268	77	D	M	0.1001	247.8	3.44	2292	13.5	231.1	3.21	1462	15.5	190.5	2.64	1024	16.6	141.8	1.97
70	77	2256	14.3	13.7	14.2	16.7	17.9	2.02	4.3	9.5	0.31	3.40	36.1	105	2.11	0.126	0.117	9.6	0.45	3787	3346	263	77	D	M	0.1163	262.4	3.40	2125	14.2	247.1	3.20	1480	16.0	212.7	2.76	1105	17.0	167.5	2.17
75	82	2063	15.0	14.4	14.8	17.3	18.5	2.11	4.5	10.0	0.31	3.69	36.6	104	2.20	0.127	0.119	9.4	0.46	3788	3346	258	76	D	M	0.1333	275.1	3.35	1968	14.8	260.9	3.18	1465	16.5	231.6	2.82	1152	17.5	190.5	2.32
80	87	1894	15.8	15.1	15.3	17.8	19.1	2.19	4.6	10.3	0.30	3.98	36.9	102	2.30	0.129	0.121	9.3	0.46	3781	3346	252	75	D	M	0.1510	286.0	3.28	1824	15.5	272.8	3.13	1431	17.0	247.6	2.84	1170	17.9	210.5	2.42
85	92	1746	16.5	15.8	15.8	18.3	19.6	2.27	4.8	10.7	0.30	4.27	37.2	101	2.39	0.131	0.122	9.2	0.46	3766	3346	247	75	D	M	0.1692	295.5	3.21	1694	16.1	283.1	3.07	1384	17.5	261.2	2.84	1168	18.3	227.9	2.47
90	97	1615	17.1	16.5	16.2	18.7	20.0	2.35	4.9	11.0	0.30	4.57	37.3	100	2.49	0.133	0.124	9.0	0.47	3747	3346	241	74	D	M	0.1879	303.5	3.13	1575	16.8	291.8	3.01	1330	18.0	272.5	2.81	1152	18.8	242.7	2.50
95	102	1499	17.8	17.1	16.6	19.1	20.4	2.43	5.0	11.3	0.30	4.86	37.3	98	2.58	0.135	0.126	8.8	0.47	3725	3346	236	73	D	M	0.2070	310.3	3.04	1469	17.4	299.1	2.93	1272	18.5	281.9	2.76	1125	19.2	255.1	2.50
100	107	1397	18.4	17.8	17.0	19.5	20.8	2.50	5.2	11.6	0.30	5.15	37.3	97	2.68	0.137	0.128	8.7	0.47	3701	3346	230	72	D	M	0.2263	316.2	2.95	1373	18.0	305.5	2.85	1215	19.0	289.9	2.71	1093	19.7	265.9	2.48
105	112	1306	19.1	18.4	17.4	19.9	21.2	2.57	5.3	11.8	0.31	5.44	37.3	96	2.77	0.139	0.131	8.5	0.47	3675	3346	225	71	D	M	0.2459	321.1	2.86	1288	18.6	310.8	2.77	1159	19.5	296.6	2.65	1057	20.1	274.9	2.45
110	117	1225	19.7	19.0	17.7	20.2	21.5	2.63	5.4	12.0	0.31	5.73	37.2	95	2.86	0.141	0.133	8.4	0.47	3649	3346	220	70	D	M	0.2655	325.2	2.78	1210	19.1	315.4	2.69	1105	20.0	302.2	2.58	1020	20.6	282.6	2.41
115	122	1153	20.2	19.5	18.1	20.5	21.9	2.70	5.5	12.2	0.31	6.02	37.1	94	2.95	0.143	0.135	8.2	0.47	3623	3346	216	69	C	M	0.2852	328.8	2.69	1141	19.7	319.3	2.62	1054	20.5	307.0	2.51	982	21.0	289.1	2.37
120	127	1087	20.8	20.1	18.4	20.8	22.2	2.76	5.7	12.4	0.31	6.30	36.9	93	3.03	0.146	0.137	8.1	0.46	3597	3346	211	68	C	M	0.3048	331.3	2.61	1078	20.2	322.1	2.53	1005	20.9	310.6	2.44	944	21.4	294.2	2.31
125	132	1029	21.3	20.6	18.7	21.1	22.4	2.82	5.8	12.6	0.31	6.58	36.8	92	3.12	0.148	0.139	8.0	0.46	3572	3346	207	68	C	M	0.3244	333.8	2.53	1021	20.7	324.8	2.46	961	21.4	313.9	2.38	909	21.9	299.0	2.26
130	137	976	21.9	21.1	18.9	21.4	22.7	2.88	5.9	12.7	0.31	6.86	36.7	91	3.20	0.150	0.141	7.8	0.46	3548	3346	203	67	C	M	0.3439	335.6	2.45	970	21.2	326.9	2.38	919	21.9	316.5	2.31	874	22.3	302.7	2.21
135	142	928	22.4	21.6	19.2	21.6	22.9	2.94	6.0	12.8	0.31	7.13	36.5	90	3.28	0.152	0.143	7.7	0.46	3525	3346	199	66	C	M	0.3631	337.0	2.37	923	21.7	328.5	2.31	879	22.3	318.5	2.24	841	22.7	305.8	2.15
140	147	885	22.9	22.1	19.4	21.9	23.2	3.00	6.1	13.0	0.32	7.40	36.4	89	3.36	0.154	0.145	7.6	0.46	3503	3346	196	65	C	M	0.3823	338.3	2.30	881	22.2	330.0	2.24	844	22.7	320.4	2.18	811	23.1	308.6	2.10
145	152	845	23.4	22.6	19.7	22.1	23.4	3.05	6.2	13.0	0.32	7.66	36.2	88	3.44	0.156	0.147	7.5	0.46	3482	3346	192	65	C	M	0.4011	338.9	2.23	841	22.7	330.8	2.17	810	23.2	321.5	2.11	781	23.5	310.6	2.04
150	157	809	23.8	23.1	19.9	22.3	23.6	3.10	6.3	13.1	0.32	7.93	36.1	87	3.52	0.158	0.149	7.4	0.45	3463	3346	189	64	C	M	0.4197	339.5	2.16	806	23.1	331.6	2.11	778	23.6	322.5	2.05	753	24.0	312.3	1.99
155	162	776	24.3	23.5	20.1	22.5	23.8	3.15	6.3	13.2	0.32	8.18	36.0	86	3.59	0.160	0.151	7.3	0.45	3445	3346	186	64	C	M	0.4380	339.9	2.10	774	23.6	332.1	2.05	750	24.0	323.3	1.99	727	24.3	313.7	1.94
160	167	746	24.7	24.0	20.3	22.7	24.0	3.20	6.4	13.3	0.32	8.44	35.8	85	3.66	0.162	0.153	7.2	0.45	3428	3346	184	63	C	M	0.4560	340.2	2.04	744	24.0	332.5	1.99	723	24.4	323.9	1.94	703	24.7	314.9	1.88
165	172	718	25.2	24.4	20.5	22.8	24.1	3.25	6.5	13.3	0.32	8.69	35.7	84	3.73	0.163	0.155	7.1	0.45	3413	3346	181	62	C	M	0.4737	340.1	1.98	716	24.4	332.5	1.93	698	24.8	324.1	1.88	681	25.1	315.7	1.83
170	177	693	25.6	24.8	20.7	23.0	24.3	3.30	6.6	13.4	0.33	8.94	35.6	83	3.80	0.165	0.156	7.0	0.45	3399	3346	179	62	C	M	0.4911	340.3	1.92	692	24.8	332.8	1.88	675	25.2	324.5	1.83	660	25.5	316.5	1.79
175	182	669	26.0	25.2	20.9	23.2	24.5	3.34	6.7	13.4	0.33	9.18	35.5	82	3.87	0.167	0.158	7.0	0.45	3386	3346	176	61	C	M	0.5079	339.8	1.87	668	25.2	332.4	1.83	653	25.6	324.3	1.78	640	25.8	316.8	1.74
180	187	648	26.4	25.6	21.0	23.3	24.6	3.39	6.7	13.5	0.33	9.42	35.4	82	3.93	0.168	0.160	6.9	0.45	3375	3346	174	61	C	M	0.5245	339.9	1.82	647	25.6	332.6	1.78	634	25.9	324.6	1.73	622	26.2	317.5	1.70

Table A69. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
		SI = 15 m Initial Density = 8000 stems/ha																																						
5	12	7864	1.4	1.3	2.2	2.7	2.9	0.70	1.5	0.5	0.73	0.38	1.1	186	1.13	0.410	0.391	1.0	0.01	1070	3501	61	30	A	M	0.0002	1.2	0.10	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	7547	2.7	2.6	3.4	4.3	4.6	0.79	1.9	1.2	0.61	0.50	4.4	139	1.15	0.266	0.250	2.7	0.05	1477	3501	111	38	B	M	0.0010	7.7	0.45	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	7091	4.0	3.7	4.6	5.9	6.3	0.90	2.3	2.0	0.52	0.65	8.7	129	1.19	0.202	0.189	4.4	0.10	1912	3501	159	46	B	M	0.0030	21.0	0.95	15	8.2	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	6549	5.1	4.8	5.8	7.4	7.9	1.01	2.6	2.9	0.46	0.82	13.3	124	1.24	0.168	0.157	5.9	0.16	2329	3501	198	54	C	M	0.0062	40.7	1.50	413	8.3	5.7	0.21	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	32	5970	6.2	5.8	6.9	8.7	9.4	1.12	2.8	3.8	0.41	1.02	17.7	121	1.29	0.149	0.138	7.2	0.21	2699	3501	230	61	C	M	0.0109	64.8	2.02	1351	8.6	24.2	0.75	7	12.6	0.4	0.01	0	0.0	0.0	0.00
30	37	5395	7.2	6.8	8.0	10.0	10.7	1.23	3.0	4.6	0.38	1.24	21.8	119	1.36	0.137	0.127	8.1	0.26	3011	3501	252	67	C	M	0.0170	91.5	2.47	2219	9.0	52.0	1.40	65	12.9	3.8	0.10	6	14.5	0.4	0.01
35	42	4850	8.1	7.7	9.0	11.1	11.9	1.33	3.1	5.4	0.36	1.47	25.3	117	1.44	0.130	0.120	8.9	0.31	3262	3501	268	71	D	M	0.0245	118.9	2.82	2746	9.6	83.2	1.98	238	13.1	15.9	0.38	42	14.7	3.1	0.07
40	47	4349	9.1	8.6	9.9	12.1	13.1	1.44	3.3	6.2	0.34	1.71	28.2	115	1.52	0.125	0.116	9.4	0.35	3456	3501	277	74	D	M	0.0335	145.7	3.09	2967	10.1	114.2	2.42	514	13.4	38.6	0.82	144	14.9	12.0	0.25
45	52	3899	10.0	9.5	10.7	13.1	14.1	1.54	3.5	6.8	0.33	1.96	30.6	113	1.60	0.123	0.114	9.7	0.38	3602	3501	282	76	D	M	0.0438	170.9	3.28	2986	10.7	143.4	2.75	818	13.8	68.7	1.32	314	15.2	29.1	0.56
50	57	3501	10.9	10.4	11.5	13.9	15.0	1.64	3.6	7.5	0.32	2.22	32.5	112	1.69	0.121	0.113	9.9	0.40	3707	3501	283	78	D	M	0.0555	194.3	3.40	2891	11.4	170.1	2.98	1087	14.1	101.8	1.78	520	15.5	53.3	0.93
55	62	3151	11.7	11.2	12.2	14.7	15.8	1.74	3.8	8.0	0.32	2.49	34.0	110	1.78	0.121	0.112	9.9	0.42	3780	3501	282	79	D	M	0.0684	215.4	3.47	2737	12.0	194.0	3.12	1288	14.6	134.3	2.16	723	15.8	81.7	1.32
60	67	2845	12.6	12.0	12.9	15.4	16.6	1.83	4.0	8.6	0.31	2.77	35.2	108	1.87	0.121	0.113	9.9	0.44	3825	3501	279	79	D	M	0.0823	234.2	3.49	2559	12.7	215.0	3.20	1418	15.0	164.1	2.45	895	16.2	111.3	1.66
65	72	2578	13.3	12.8	13.6	16.1	17.3	1.92	4.1	9.1	0.31	3.05	36.1	107	1.97	0.122	0.114	9.9	0.45	3851	3501	274	79	D	M	0.0973	250.9	3.48	2378	13.4	233.5	3.24	1487	15.4	190.5	2.64	1025	16.6	139.8	1.94
70	77	2345	14.1	13.5	14.1	16.7	17.9	2.01	4.3	9.5	0.31	3.34	36.7	105	2.07	0.124	0.115	9.8	0.46	3861	3501	269	78	D	M	0.1132	265.4	3.44	2202	14.0	249.5	3.24	1509	15.9	213.2	2.77	1114	17.0	166.2	2.16
75	82	2142	14.9	14.3	14.7	17.3	18.5	2.09	4.4	9.9	0.30	3.62	37.2	104	2.16	0.125	0.117	9.6	0.46	3858	3501	264	78	D	M	0.1298	278.1	3.39	2038	14.7	263.4	3.21	1498	16.4	232.5	2.83	1166	17.4	189.7	2.31
80	87	1964	15.6	15.0	15.2	17.8	19.1	2.17	4.6	10.3	0.30	3.91	37.5	103	2.26	0.127	0.118	9.5	0.47	3847	3501	258	77	D	M	0.1471	289.0	3.32	1888	15.3	275.4	3.16	1465	16.9	248.9	2.86	1188	17.8	210.2	2.41
85	92	1808	16.3	15.7	15.7	18.3	19.6	2.25	4.7	10.7	0.30	4.20	37.7	101	2.35	0.129	0.120	9.3	0.47	3830	3501	252	76	D	M	0.1650	298.4	3.24	1751	16.0	285.6	3.10	1418	17.4	262.6	2.85	1189	18.2	227.9	2.47
90	97	1671	17.0	16.3	16.1	18.7	20.0	2.33	4.8	11.0	0.30	4.49	37.8	100	2.45	0.131	0.122	9.2	0.47	3807	3501	246	75	D	M	0.1834	306.5	3.16	1628	16.6	294.4	3.03	1364	17.9	274.2	2.82	1174	18.7	243.0	2.50
95	102	1550	17.6	17.0	16.5	19.1	20.4	2.41	5.0	11.3	0.30	4.78	37.8	99	2.54	0.133	0.124	9.0	0.47	3782	3501	240	74	D	M	0.2021	313.3	3.07	1517	17.2	301.8	2.96	1306	18.4	283.9	2.78	1149	19.1	255.9	2.51
100	107	1443	18.3	17.6	16.9	19.5	20.8	2.48	5.1	11.5	0.30	5.07	37.8	98	2.63	0.135	0.126	8.8	0.47	3755	3501	235	73	D	M	0.2211	319.1	2.98	1417	17.8	308.2	2.88	1247	18.9	292.0	2.73	1117	19.5	266.9	2.49
105	112	1348	18.9	18.2	17.3	19.9	21.2	2.55	5.2	11.8	0.30	5.36	37.7	97	2.72	0.137	0.129	8.7	0.47	3726	3501	229	72	D	M	0.2404	324.0	2.89	1328	18.4	313.5	2.80	1190	19.3	298.8	2.67	1081	20.0	276.1	2.46
110	117	1263	19.5	18.8	17.6	20.2	21.5	2.61	5.4	12.0	0.31	5.64	37.6	95	2.81	0.139	0.131	8.5	0.47	3698	3501	224	71	D	M	0.2597	328.0	2.80	1247	19.0	317.9	2.71	1134	19.8	304.3	2.60	1043	20.4	283.8	2.42
115	122	1187	20.1	19.4	18.0	20.5	21.9	2.68	5.5	12.2	0.31	5.93	37.5	94	2.90	0.142	0.133	8.4	0.47	3669	3501	219	70	D	M	0.2791	331.3	2.71	1174	19.5	321.6	2.63	1081	20.3	308.9	2.53	1004	20.9	290.3	2.38
120	127	1120	20.6	19.9	18.3	20.8	22.2	2.74	5.6	12.4	0.31	6.21	37.4	93	2.99	0.144	0.135	8.2	0.47	3641	3501	215	69	C	M	0.2985	334.3	2.63	1110	20.0	324.9	2.56	1032	20.8	313.0	2.46	967	21.3	296.0	2.33
125	132	1058	21.2	20.4	18.6	21.1	22.4	2.80	5.7	12.5	0.31	6.48	37.2	92	3.07	0.146	0.137	8.1	0.47	3614	3501	210	69	C	M	0.3179	336.3	2.55	1050	20.6	327.1	2.48	985	21.2	315.9	2.39	929	21.7	300.3	2.27
130	137	1003	21.7	21.0	18.8	21.3	22.7	2.86	5.8	12.7	0.31	6.76	37.1	91	3.16	0.148	0.139	8.0	0.47	3588	3501	206	68	C	M	0.3371	338.1	2.47	996	21.1	329.2	2.40	941	21.7	318.5	2.32	894	22.2	304.2	2.22
135	142	954	22.2	21.5	19.1	21.6	22.9	2.92	5.9	12.8	0.31	7.03	36.9	90	3.24	0.150	0.141	7.8	0.46	3563	3501	203	67	C	M	0.3562	339.8	2.39	948	21.6	331.1	2.33	902	22.1	320.9	2.26	861	22.6	307.7	2.17
140	147	908	22.7	22.0	19.4	21.8	23.2	2.98	6.0	12.9	0.31	7.29	36.7	89	3.32	0.152	0.143	7.7	0.46	3539	3501	199	66	C	M	0.3750	340.5	2.31	903	22.0	332.1	2.26	864	22.6	322.3	2.19	828	23.0	310.0	2.11
145	152	867	23.2	22.4	19.6	22.0	23.4	3.03	6.1	13.0	0.32	7.56	36.6	88	3.40	0.154	0.145	7.6	0.46	3517	3501	195	66	C	M	0.3937	341.3	2.24	863	22.5	333.1	2.19	829	23.0	323.6	2.13	798	23.4	312.2	2.05
150	157	830	23.6	22.9	19.8	22.3	23.6	3.08	6.2	13.1	0.32	7.82	36.4	87	3.47	0.156	0.147	7.5	0.46	3496	3501	192	65	C	M	0.4122	342.1	2.18	827	22.9	334.0	2.13	797	23.4	324.7	2.07	770	23.8	314.1	2.00
155	162	796	24.1	23.3	20.0	22.4	23.8	3.13	6.3	13.2	0.32	8.08	36.3	86	3.54	0.158	0.149	7.4	0.46	3476	3501	189	64	C	M	0.4303	342.5	2.11	793	23.4	334.5	2.06	768	23.8	325.6	2.01	744	24.2	315.7	1.95
160	167	764	24.5	23.8	20.2	22.6	24.0	3.18	6.4	13.3	0.32	8.33	36.1	85	3.62	0.160	0.151	7.3	0.45	3458	3501	186	64	C	M	0.4482	342.4	2.05	762	23.8	334.5	2.00	739	24.2	325.8	1.95	719	24.6	316.5	1.89
165	172	735	25.0	24.2	20.4	22.8	24.1	3.23	6.5	13.3	0.32	8.58	36.0	84	3.69	0.162	0.153	7.2	0.45	3441	3501	183	63	C	M	0.4656	342.2	1.99	733	24.2	334.5	1.94	713	24.6	326.0	1.89	695	24.9	317.3	1.84
170	177	709	25.4	24.6	20.6	23.0	24.3	3.28	6.5	13.4	0.32	8.82	35.9	84	3.76	0.163	0.154	7.1	0.45	3426	3501	181	63	C	M	0.4828	342.3	1.93	707	24.7	334.7	1.89	690	25.0	326.4	1.84	674	25.3	318.1	1.80
175	182	684	25.8	25.0	20.8	23.1	24.5	3.32	6.6	13.4	0.33	9.07	35.8	83	3.82	0.165	0.156	7.0	0.45	3412	3501	178	62	C	M	0.4997	341.8	1.88	683	25.0	334.3	1.84	667	25.4	326.1	1.79	653	25.7	318.3	1.75
180	187	662	26.2	25.4	20.9	23.3	24.6	3.37	6.7	13.4	0.33	9.31	35.7	82	3.89	0.167	0.158	7.0	0.45	3399	3501	176	62	C	M	0.5162	341.7	1.83	661	25.4	334.3	1.79	647	25.8	326.2	1.74	634	26.0	318.8	1.70
		SI = 15 m Initial Density = 9000 stems/ha																																						
5	12	8838	1.3	1.2	2.1	2.7	2.9	0.69	1.4	0.5	0.72	0.38	1.2	191	1.06	0.387	0.369	1.0	0.01	1189	3802	66	33	B	M	0.0001	1.3	0.11	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	8463	2.6	2.5	3.4	4.3	4.6	0.78	1.9	1.2	0.60	0.49	4.7	142	1.09	0.251	0.236	2.9	0.05	1620	3802	121	41	B	M	0.0009	8.0	0.47	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	7926	3.8	3.6	4.6	5.9	6.3	0.89	2.2	2.0	0.51	0.63	9.2	131	1.12	0.191	0.179	4.7	0.11	2075	3802	171	50	C	M	0.0028	21.8	0.99	10	8.1	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	7290	4.9	4.6	5.8	7.3	7.9	0.99	2.5	2.9	0.45	0.80	14.0	126	1.17	0.160	0.149	6.3	0.17	2507	3802	213	58	C	M	0.0058	42.2	1.56	360	8.2	4.9	0.18	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	32	6616	6.0	5.6	6.9	8.7	9.4	1.10	2.7	3.8	0.41	0.99	18.6	123	1.23	0.141	0.131	7.6	0.22	2885	3802	246	65	C	M	0.0101	67.1	2.09	1313	8.5	22.7	0.71	4	12.6	0.2	0.01	0	0.0	0.0	0.00
30	37	5952	7.0	6.6	7.9	9.9	10.7	1.21	2.9	4.6	0.38	1.19	22.8	120	1.30	0.131	0.121	8.6	0.28	3200	3802	269	71	D	M	0.0159	94.5	2.55	2263	8.9	50.8	1.37	49	12.8	2.9	0.08	4	14.4	0.3	0.01
35	42	5327	7.9	7.5	8.9	11.1	11.9	1.31	3.0	5.4	0.35	1.42	26.4	118	1.37	0.124	0.115	9.4	0.32	3449	3802	284	75	D	M	0.0230	122.5	2.91	2867	9.4	82.9	1.97	203	13.1	13.4	0.32	31	14.7	2.3	0.05
40	47	4758	8.9	8.4	9.8	12.1	13.1	1.41	3.2	6.1	0.34	1.65	29.4	116	1.45	0.120	0.111	9.9	0.36	3639	3802	293	78	D	M	0.0315	149.8	3.18	3137	10.0	115.0	2.44	469	13.3	34.6	0.73	119	14.9	9.8	0.21
45	52	4250	9.8	9.3	10.6	13.0	14.1	1.51	3.4	6.8	0.33	1.89	31.8	114	1.53	0.118	0.109	10.2	0.39	3779	3802	298	80	D	M	0.0413	175.5	3.37	3178	10.6	145.2	2.79	782	13.7	64.3	1.23	278	15.1	25.3	0.49
50	57	3802	10.6	10.1	11.4	13.9	15.0	1.61	3.5	7.4	0.32	2.15	33.7	113	1.62	0.117	0.108	10.3	0.42	3877	3802	298	82	D	M	0.0524	199.1	3.49	3085	11.2	172.7	3.02	1069	14.0	97.8	1.71	483	15.4	48.5	0.85
55	62	3411	11.5	10.9	12.1	14.7	15.8	1.71	3.7	8.0	0.31	2.41	35.2	111	1.71	0.117	0.108	10.4	0.44	3941	3802	296	82	D	M	0.0646	220.5	3.55	2925	11.8	197.2	3.18	1293	14.4	131.3	2.11	693	15.7	76.6	1.23
60	67	3071	12.3	11.7	12.8	15.4	16.6	1.80	3.9	8.5	0.31	2.68	36.4	109	1.80	0.117	0.109	10.4	0.45	3979	3802	292	82	D	M	0.0780	239.5	3.57	2736	12.5	218.7	3.26	1443	14.8	162.3	2.42	878	16.1	106.5	1.59
65	72	2776	13.1	12.5	13.4	16.1	17.3	1.89	4.0	9.0	0.30	2.95	37.2	108	1.90	0.118	0.110	10.3	0.46	3997	3802	287	82	D	M	0.0923	256.3	3.55	2541	13.1	237.6	3.30	1528	15.3	189.9	2.63	1024	16.4	135.9	1.88
70	77	2519	13.8	13.2	14.0	16.7	17.9	1.97	4.2	9.4	0.30	3.23	37.8	106	1.99	0.120	0.111	10.2	0.47	3999	3802	281	81	D	M	0.1076	271.0	3.51	2352	13.8	253.9	3.29	1562	15.7	213.7	2.77	1125	16.8	163.1	2.12
75	82	2295	14.6	14.0	14.5	17.2	18.5	2.06	4.3	9.9	0.30	3.51	38.3	105	2.09	0.121	0.113	10.0	0.48	3990	3802	275	80	D	M	0.1236	283.6	3.45	2174	14.4	267.9	3.26	1557	16.2	233.8	2.85	1188	17.2	187.6	2.28
80	87	2100	15.3	14.7	15.0	17.7	19.1	2.14	4.5	10.2	0.30	3.79	38.5	104	2.18	0.123	0.115	9.9	0.48	3972	3802	268	80	D	M	0.1402	294.5	3.38	2011	15.1	280.0	3.21	1528	16.7	250.9	2.88	1219	17.6	209.0	2.40
85	92	1930	16.0	15.4	15.5	18.2	19.6	2.22	4.6	10.6	0.30	4.07	38.7	102	2.28	0.125	0.116	9.7	0.48	3948	3802	262	79	D	M	0.1575	304.0	3.30	1864	15.7	290.4	3.15	1483	17.1	265.2	2.88	1226	18.0	227.6	2.47
90	97	1780	16.7	16.0	16.0	18.7	20.0	2.29	4.7	10.9	0.30	4.36	38.8	101	2.37	0.127	0.118	9.5	0.49	3920	3802	255	78	D	M	0.1752	311.9	3.21	1730	16.3	299.2	3.08	1428	17.6	277.2	2.85	1215	18.4	243.4	2.51
95	102	1649	17.3	16.7	16.4	19.1	20.4	2.37	4.9	11.2	0.30	4.64	38.8	100	2.46	0.129	0.121	9.3	0.49	3889	3802	249	76	D	M	0.1933	318.8	3.12	1610	16.9	306.8	3.00	1369	18.1	287.3	2.81	1192	18.9	256.9	2.52
100	107	1532	17.9	17.3	16.8	19.4	20.8	2.44	5.0	11.5	0.30	4.92	38.7	98	2.55	0.131	0.123	9.1	0.49	3856	3802	243	75	D	M	0.2117	324.4	3.03	1502	17.5	312.9	2.92	1308	18.6	295.5	2.76	1161	19.3	268.3	2.51
105	112	1429	18.5	17.9	17.1	19.8	21.2	2.51	5.1	11.7	0.30	5.20	38.6	97	2.65	0.134	0.125	9.0	0.48	3823	3802	237	74	D	M	0.2304	329.3	2.94	1406	18.1	318.3	2.84	1248	19.1	302.5	2.70	1125	19.7	277.9	2.48
110	117	1337	19.1	18.5	17.5	20.1	21.5	2.58	5.3	11.9	0.30	5.48	38.5	96	2.73	0.136	0.127	8.8	0.48	3789	3802	232	73	D	M	0.2492	333.2	2.85	1318	18.6	322.6	2.75	1189	19.6	308.1	2.63	1087	20.2	286.0	2.44
115	122	1255	19.7	19.0	17.8	20.5	21.9	2.64	5.4	12.1	0.30	5.76	38.3	95	2.82	0.138	0.129	8.6	0.48	3756	3802	227	72	D	M	0.2680	336.4	2.76	1240	19.2	326.3	2.67	1134	20.0	312.9	2.56	1047	20.6	292.7	2.40
120	127	1182	20.3	19.6	18.1	20.7	22.2	2.70	5.5	12.3	0.30	6.03	38.2	94	2.91	0.140	0.131	8.5	0.48	3724	3802	222	71	D	M	0.2870	339.2	2.67	1170	19.7	329.4	2.59	1082	20.5	316.9	2.49	1008	21.0	298.5	2.35
125	132	1116	20.8	20.1	18.4	21.0	22.4	2.76	5.6	12.5	0.31	6.30	38.0	93	2.99	0.142	0.133	8.3	0.48	3693	3802	217	70	D	M	0.3058	341.3	2.58	1106	20.2	331.8	2.51	1032	20.9	320.0	2.42	970	21.5	303.3	2.30
130	137	1056	21.3	20.6	18.7	21.3	22.7	2.82	5.7	12.6	0.31	6.57	37.8	92	3.08	0.145	0.136	8.2	0.47	3663	3802	212	69	C	M	0.3246	342.8	2.50	1048	20.7	333.6	2.43	986	21.4	322.4	2.35	932	21.9	307.0	2.24
135	142	1003	21.8	21.1	18.9	21.5	22.9	2.88	5.8	12.8	0.31	6.84	37.6	91	3.16	0.147	0.138	8.0	0.47	3634	3802	208	69	C	M	0.3433	344.3	2.42	996	21.2	335.3	2.36	944	21.8	324.7	2.28	898	22.3	310.5	2.19
140	147	954	22.3	21.6	19.2	21.8	23.2	2.94	5.9	12.9	0.31	7.10	37.4	90	3.24	0.149	0.140	7.9	0.47	3607	3802	204	68	C	M	0.3617	345.1	2.35	949	21.7	336.4	2.29	903	22.3	326.1	2.22	864	22.7	313.1	2.13
145	152	910	22.8	22.1	19.4	22.0	23.4	2.99	6.0	13.0	0.31	7.36	37.2	89	3.31	0.151	0.142	7.8	0.47	3581	3802	201	67	C	M	0.3800	345.8	2.27	905	22.2	337.3	2.22	867	22.7	327.5	2.15	832	23.1	315.3	2.07
150	157	869	23.3	22.5	19.6	22.2	23.6	3.04	6.1	13.1	0.31	7.62	37.0	88	3.39	0.153	0.144	7.7	0.47	3557	3802	197	66	C	M	0.3982	346.0	2.20	865	22.6	337.6	2.15	832	23.1	328.1	2.09	802	23.5	316.8	2.02
155	162	833	23.7	23.0	19.8	22.4	23.8	3.09	6.2	13.1	0.32	7.87	36.9	87	3.46	0.155	0.146	7.6	0.46	3535	3802	194	66	C	M	0.4160	346.5	2.14	830	23.0	338.3	2.09	801	23.5	329.0	2.03	774	23.9	318.4	1.96
160	167	799	24.2	23.4	20.0	22.6	24.0	3.14	6.3	13.2	0.32	8.13	36.7	86	3.54	0.157	0.148	7.5	0.46	3514	3802	191	65	C	M	0.4335	346.4	2.07	796	23.5	338.3	2.02	771	23.9	329.3	1.97	748	24.2	319.4	1.91
165	172	768	24.6	23.8	20.2	22.7	24.1	3.19	6.4	13.3	0.32	8.37	36.6	85	3.61	0.159	0.149	7.4	0.46	3495	3802	188	64	C	M	0.4508	346.2	2.01	766	23.9	338.3	1.97	743	24.3	329.4	1.91	723	24.6	320.2	1.86
170	177	740	25.0	24.3	20.4	22.9	24.3	3.24	6.4	13.3	0.32	8.62	36.4	84	3.68	0.160	0.151	7.3	0.46	3477	3802	185	64	C	M	0.4677	346.1	1.95	738	24.3	338.3	1.91	718	24.7	329.7	1.86	700	25.0	320.9	1.81
175	182	713	25.4	24.7	20.6	23.1	24.5	3.28	6.5	13.4	0.32	8.86	36.2	83	3.75	0.162	0.153	7.2	0.46	3460	3802	182	63	C	M	0.4843	345.3	1.90	711	24.7	337.7	1.85	694	25.1	329.2	1.81	678	25.3	321.0	1.76
180	187	689	25.8	25.0	20.7	23.2	24.6	3.33	6.6	13.4	0.33	9.09	36.1	82	3.81	0.164	0.155	7.1	0.45	3445	3802	180	63	C	M	0.5006	344.9	1.84	688	25.1	337.4	1.80	672	25.4	329.1	1.76	658	25.7	321.3	1.72

Table A70. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																										Util. std. = 8/6				Util. std. = 13/7				Util std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
		SI = 15 m Initial Density = 10000 stems/ha																																						
5	12	9812	1.3	1.2	2.1	2.7	2.9	0.69	1.4	0.5	0.72	0.38	1.2	196	1.01	0.368	0.350	1.1	0.02	1307	4094	72	37	B	M	0.0001	1.3	0.11	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	9377	2.6	2.4	3.3	4.3	4.6	0.78	1.9	1.2	0.59	0.48	4.9	144	1.03	0.239	0.225	3.0	0.06	1760	4094	130	45	B	M	0.0009	8.3	0.49	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	8755	3.7	3.5	4.5	5.9	6.3	0.88	2.2	2.0	0.50	0.62	9.6	133	1.07	0.182	0.170	5.0	0.11	2234	4094	183	54	C	M	0.0026	22.6	1.02	6	8.1	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	8023	4.8	4.5	5.7	7.3	7.9	0.98	2.4	2.9	0.44	0.78	14.6	128	1.12	0.152	0.142	6.7	0.17	2678	4094	227	63	C	M	0.0054	43.5	1.60	312	8.2	4.1	0.15	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	32	7253	5.8	5.5	6.8	8.7	9.4	1.09	2.6	3.8	0.40	0.96	19.4	124	1.17	0.135	0.125	8.0	0.23	3063	4094	261	70	C	M	0.0095	69.1	2.15	1266	8.4	21.2	0.66	3	12.4	0.1	0.00	0	0.0	0.0	0.00
30	37	6499	6.8	6.4	7.8	9.9	10.7	1.19	2.8	4.6	0.37	1.16	23.7	122	1.24	0.125	0.116	9.1	0.29	3378	4094	285	75	D	M	0.0149	97.1	2.62	2288	8.8	49.5	1.33	37	12.8	2.1	0.06	3	14.2	0.2	0.01
35	42	5794	7.8	7.3	8.8	11.0	11.9	1.29	3.0	5.4	0.35	1.37	27.4	119	1.31	0.119	0.110	9.8	0.34	3625	4094	300	79	D	M	0.0217	125.7	2.99	2967	9.3	82.3	1.95	172	13.0	11.2	0.27	23	14.6	1.7	0.04
40	47	5156	8.7	8.2	9.7	12.1	13.1	1.39	3.1	6.1	0.33	1.60	30.4	117	1.39	0.115	0.107	10.3	0.38	3811	4094	309	82	D	M	0.0298	153.4	3.26	3287	9.8	115.4	2.45	427	13.3	31.0	0.66	98	14.8	8.0	0.17
45	52	4590	9.5	9.1	10.5	13.0	14.1	1.49	3.3	6.7	0.32	1.83	32.9	115	1.48	0.113	0.105	10.6	0.41	3944	4094	312	84	D	M	0.0391	179.5	3.45	3352	10.4	146.5	2.81	743	13.6	60.0	1.15	245	15.1	22.0	0.42
50	57	4094	10.4	9.9	11.3	13.9	15.0	1.59	3.4	7.3	0.31	2.08	34.8	114	1.56	0.113	0.104	10.8	0.43	4035	4094	312	85	D	M	0.0497	203.4	3.56	3266	11.0	174.7	3.06	1046	13.9	93.7	1.64	446	15.3	44.0	0.77
55	62	3663	11.2	10.7	12.0	14.6	15.8	1.68	3.6	7.9	0.31	2.33	36.3	112	1.65	0.113	0.104	10.8	0.45	4091	4094	309	86	D	M	0.0614	225.0	3.62	3101	11.7	199.8	3.22	1290	14.3	128.0	2.06	661	15.6	71.6	1.15
60	67	3290	12.0	11.5	12.7	15.4	16.6	1.77	3.8	8.4	0.30	2.59	37.4	110	1.74	0.114	0.105	10.8	0.47	4122	4094	305	85	D	M	0.0742	244.2	3.64	2903	12.3	221.8	3.31	1460	14.7	160.1	2.39	858	15.9	101.7	1.52
65	72	2966	12.8	12.3	13.3	16.0	17.3	1.86	3.9	8.9	0.30	2.86	38.2	109	1.84	0.115	0.106	10.7	0.48	4132	4094	299	85	D	M	0.0880	261.0	3.62	2695	12.9	240.9	3.34	1560	15.1	188.6	2.62	1016	16.3	131.6	1.83
70	77	2686	13.6	13.0	13.9	16.6	17.9	1.94	4.1	9.4	0.30	3.13	38.8	107	1.93	0.116	0.108	10.5	0.49	4127	4094	292	84	D	M	0.1026	275.7	3.58	2493	13.6	257.5	3.34	1605	15.6	213.4	2.77	1130	16.7	159.7	2.07
75	82	2443	14.3	13.7	14.4	17.2	18.5	2.03	4.2	9.8	0.30	3.40	39.2	106	2.02	0.118	0.109	10.4	0.49	4111	4094	285	83	D	M	0.1181	288.4	3.51	2303	14.2	271.8	3.31	1609	16.0	234.5	2.86	1204	17.0	185.0	2.25
80	87	2232	15.0	14.4	14.9	17.7	19.1	2.11	4.4	10.2	0.30	3.68	39.5	104	2.12	0.120	0.111	10.2	0.50	4087	4094	278	82	D	M	0.1341	299.4	3.44	2129	14.8	284.1	3.26	1584	16.5	252.2	2.90	1244	17.4	207.4	2.38
85	92	2047	15.7	15.1	15.4	18.2	19.6	2.19	4.5	10.5	0.30	3.96	39.6	103	2.21	0.122	0.113	10.0	0.50	4057	4094	271	81	D	M	0.1509	308.8	3.35	1970	15.4	294.4	3.20	1541	16.9	267.1	2.90	1256	17.8	226.6	2.46
90	97	1886	16.4	15.7	15.8	18.6	20.0	2.26	4.6	10.8	0.30	4.23	39.7	102	2.30	0.124	0.115	9.8	0.50	4023	4094	264	80	D	M	0.1680	316.8	3.26	1828	16.0	303.4	3.12	1487	17.4	279.6	2.88	1250	18.3	243.2	2.50
95	102	1743	17.0	16.4	16.2	19.0	20.4	2.34	4.8	11.1	0.30	4.51	39.6	100	2.40	0.126	0.117	9.6	0.50	3987	4094	257	79	D	M	0.1855	323.4	3.17	1699	16.6	310.8	3.04	1426	17.9	289.7	2.84	1230	18.7	257.2	2.52
100	107	1618	17.6	17.0	16.6	19.4	20.8	2.41	4.9	11.4	0.30	4.79	39.5	99	2.49	0.128	0.119	9.4	0.50	3950	4094	251	77	D	M	0.2034	329.1	3.07	1584	17.2	317.1	2.96	1364	18.4	298.4	2.79	1200	19.1	269.1	2.51
105	112	1507	18.2	17.6	17.0	19.8	21.2	2.47	5.0	11.6	0.30	5.06	39.4	98	2.58	0.130	0.122	9.2	0.50	3912	4094	245	76	D	M	0.2216	333.9	2.98	1480	17.8	322.4	2.88	1302	18.8	305.5	2.73	1165	19.5	279.1	2.49
110	117	1408	18.8	18.2	17.3	20.1	21.5	2.54	5.2	11.9	0.30	5.33	39.2	97	2.67	0.133	0.124	9.0	0.49	3874	4094	239	75	D	M	0.2398	337.7	2.88	1387	18.3	326.7	2.79	1241	19.3	311.3	2.66	1126	19.9	287.5	2.46
115	122	1320	19.4	18.7	17.6	20.4	21.9	2.61	5.3	12.1	0.30	5.61	39.0	96	2.75	0.135	0.126	8.9	0.49	3837	4094	233	74	D	M	0.2582	340.8	2.79	1303	18.9	330.3	2.71	1183	19.8	316.1	2.59	1086	20.4	294.5	2.41
120	127	1242	20.0	19.3	17.9	20.7	22.2	2.67	5.4	12.3	0.30	5.88	38.9	95	2.84	0.137	0.128	8.7	0.49	3801	4094	228	73	D	M	0.2767	343.6	2.70	1228	19.4	333.4	2.62	1129	20.2	320.2	2.52	1047	20.8	300.6	2.37
125	132	1171	20.5	19.8	18.2	21.0	22.4	2.73	5.5	12.4	0.30	6.14	38.6	93	2.92	0.139	0.130	8.5	0.49	3766	4094	223	72	D	M	0.2950	345.5	2.62	1160	19.9	335.7	2.54	1077	20.7	323.3	2.45	1007	21.2	305.4	2.31
130	137	1107	21.0	20.3	18.5	21.2	22.7	2.79	5.6	12.6	0.31	6.41	38.4	92	3.01	0.142	0.132	8.4	0.48	3732	4094	218	71	D	M	0.3134	346.9	2.53	1098	20.4	337.4	2.46	1028	21.1	325.7	2.38	968	21.6	309.3	2.26
135	142	1050	21.5	20.8	18.7	21.5	22.9	2.84	5.7	12.7	0.31	6.67	38.2	91	3.09	0.144	0.135	8.2	0.48	3700	4094	214	70	D	M	0.3316	348.2	2.45	1042	20.9	339.0	2.39	983	21.6	327.8	2.31	932	22.0	312.8	2.20
140	147	998	22.0	21.3	19.0	21.7	23.2	2.90	5.8	12.8	0.31	6.93	38.0	90	3.17	0.146	0.137	8.1	0.48	3670	4094	210	69	C	M	0.3498	349.1	2.37	992	21.4	340.1	2.31	941	22.0	329.4	2.24	897	22.4	315.5	2.14
145	152	951	22.5	21.8	19.2	21.9	23.4	2.95	5.9	12.9	0.31	7.19	37.8	89	3.24	0.148	0.139	8.0	0.48	3641	4094	206	68	C	M	0.3677	349.7	2.30	946	21.8	340.9	2.24	902	22.4	330.7	2.17	864	22.8	317.8	2.09
150	157	908	23.0	22.2	19.4	22.1	23.6	3.01	6.0	13.0	0.31	7.44	37.6	88	3.32	0.150	0.141	7.8	0.47	3614	4094	202	68	C	M	0.3855	350.0	2.23	904	22.3	341.4	2.17	866	22.8	331.5	2.11	833	23.2	319.6	2.03
155	162	868	23.4	22.7	19.6	22.3	23.8	3.06	6.1	13.1	0.31	7.69	37.4	87	3.39	0.152	0.143	7.7	0.47	3589	4094	198	67	C	M	0.4030	349.8	2.16	864	22.7	341.4	2.11	832	23.2	331.8	2.05	802	23.6	320.6	1.98
160	167	832	23.9	23.1	19.8	22.5	24.0	3.11	6.2	13.2	0.32	7.94	37.2	87	3.47	0.154	0.145	7.6	0.47	3566	4094	195	66	C	M	0.4202	349.6	2.09	829	23.2	341.4	2.04	800	23.6	332.1	1.99	775	24.0	321.7	1.93
165	172	800	24.3	23.5	20.0	22.7	24.1	3.15	6.3	13.2	0.32	8.18	37.1	86	3.54	0.156	0.146	7.5	0.47	3544	4094	192	65	C	M	0.4373	349.8	2.03	797	23.6	341.7	1.99	772	24.0	332.6	1.93	750	24.3	322.8	1.88
170	177	769	24.7	23.9	20.2	22.9	24.3	3.20	6.4	13.3	0.32	8.42	36.9	85	3.61	0.158	0.148	7.4	0.46	3523	4094	189	65	C	M	0.4540	349.1	1.97	767	24.0	341.1	1.93	745	24.4	332.3	1.88	724	24.7	323.0	1.82
175	182	741	25.1	24.3	20.4	23.0	24.5	3.25	6.4	13.3	0.32	8.66	36.7	84	3.67	0.160	0.150	7.3	0.46	3505	4094	186	64	C	M	0.4703	348.5	1.91	739	24.4	340.7	1.87	720	24.8	332.1	1.82	702	25.1	323.3	1.78
180	187	716	25.5	24.7	20.6	23.2	24.6	3.29	6.5	13.4	0.32	8.90	36.6	83	3.74	0.161	0.152	7.2	0.46	3488	4094	184	64	C	M	0.4865	348.3	1.86	714	24.8	340.6	1.82	697	25.1	332.1	1.77	681	25.4	323.8	1.73
		SI = 15 m Initial Density = 15000 stems/ha																																						
5	12	14670	1.1	1.0	2.1	2.7	2.9	0.68	1.3	0.6	0.69	0.37	1.4	219	0.83	0.302	0.286	1.3	0.02	1883	5457	97	54	C	M	0.0001	1.4	0.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	13907	2.3	2.1	3.2	4.3	4.6	0.76	1.7	1.2	0.56	0.45	5.7	155	0.85	0.197	0.184	3.8	0.07	2426	5457	171	63	C	M	0.0007	9.3	0.54	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	12831	3.4	3.1	4.4	5.8	6.3	0.84	1.9	2.0	0.48	0.57	11.3	141	0.88	0.151	0.140	6.2	0.14	2969	5457	237	73	D	M	0.0020	25.4	1.15	1	8.1	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	11593	4.3	4.1	5.5	7.3	7.9	0.94	2.2	2.9	0.42	0.70	17.1	134	0.93	0.128	0.118	8.2	0.21	3454	5457	290	82	D	M	0.0042	48.7	1.80	149	8.0	1.8	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	32	10323	5.3	5.0	6.5	8.6	9.4	1.03	2.3	3.7	0.38	0.86	22.6	130	0.98	0.114	0.105	9.8	0.28	3853	5457	328	89	D	M	0.0074	76.7	2.39	950	8.2	14.4	0.45	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	37	9111	6.2	5.8	7.5	9.8	10.7	1.12	2.5	4.5	0.35	1.03	27.4	127	1.05	0.107	0.098	11.0	0.34	4162	5457	353	94	D	M	0.0117	107.0	2.88	2205	8.5	41.6	1.12	10	12.6	0.5	0.01	0	0.0	0.0	0.00
35	42	8008	7.1	6.7	8.4	11.0	11.9	1.22	2.7	5.2	0.33	1.21	31.4	124	1.12	0.102	0.094	11.8	0.39	4388	5457	368	97	D	M	0.0172	137.5	3.27	3283	8.9	77.2	1.83	73	12.8	4.5	0.11	6	14.4	0.4	0.01
40	47	7032	7.9	7.5	9.3	12.0	13.1	1.31	2.8	5.9	0.32	1.41	34.6	122	1.19	0.100	0.091	12.3	0.44	4543	5457	374	99	D	M	0.0237	166.9	3.54	3819	9.4	113.3	2.41	248	13.0	17.1	0.36	36	14.6	2.8	0.06
45	52	6185	8.7	8.3	10.1	12.9	14.1	1.40	3.0	6.5	0.31	1.62	37.2	119	1.27	0.099	0.090	12.6	0.47	4642	5457	375	100	D	M	0.0314	194.2	3.73	4017	9.9	147.8	2.84	532	13.3	40.5	0.78	125	14.8	10.6	0.20
50	57	5457	9.6	9.1	10.8	13.7	15.0	1.49	3.1	7.1	0.30	1.84	39.1	117	1.35	0.099	0.090	12.7	0.49	4697	5457	372	100	D	M	0.0401	219.0	3.84	3990	10.4	179.1	3.14	863	13.6	72.2	1.26	282	15.1	26.2	0.46
55	62	4835	10.3	9.8	11.5	14.5	15.8	1.58	3.3	7.7	0.30	2.06	40.6	115	1.44	0.099	0.091	12.6	0.51	4718	5457	365	100	D	M	0.0499	241.2	3.88	3830	11.0	206.7	3.33	1221	13.8	110.5	1.78	487	15.3	49.4	0.80
60	67	4303	11.1	10.6	12.1	15.2	16.6	1.66	3.4	8.2	0.29	2.29	41.6	114	1.52	0.100	0.092	12.5	0.53	4714	5457	358	99	D	M	0.0606	260.8	3.89	3609	11.6	230.8	3.44	1471	14.2	145.8	2.17	707	15.6	77.7	1.16
65	72	3849	11.8	11.3	12.7	15.9	17.3	1.75	3.6	8.6	0.29	2.53	42.3	112	1.61	0.102	0.093	12.3	0.54	4692	5457	349	97	D	M	0.0722	278.0	3.86	3361	12.1	251.5	3.49	1643	14.6	178.4	2.47	943	15.8	110.7	1.54
70	77	3460	12.6	12.0	13.3	16.4	17.9	1.83	3.7	9.1	0.29	2.77	42.8	110	1.70	0.103	0.095	12.1	0.54	4656	5457	339	96	D	M	0.0846	292.8	3.80	3113	12.7	269.3	3.49	1746	14.9	207.1	2.69	1107	16.1	141.0	1.83
75	82	3126	13.2	12.7	13.8	17.0	18.5	1.91	3.9	9.5	0.29	3.02	43.1	109	1.79	0.105	0.097	11.8	0.55	4611	5457	329	94	D	M	0.0978	305.7	3.72	2874	13.3	284.4	3.46	1792	15.3	231.8	2.82	1229	16.5	169.4	2.06
80	87	2837	13.9	13.3	14.3	17.5	19.1	1.99	4.0	9.9	0.29	3.26	43.2	107	1.88	0.107	0.099	11.6	0.55	4560	5457	320	93	D	M	0.1116	316.6	3.63	2652	13.9	297.3	3.41	1795	15.7	252.6	2.90	1309	16.8	194.9	2.24
85	92	2587	14.6	14.0	14.7	18.0	19.6	2.06	4.2	10.2	0.29	3.51	43.2	106	1.97	0.109	0.101	11.3	0.55	4505	5457	310	91	D	M	0.1260	325.9	3.54	2450	14.5	308.1	3.35	1769	16.2	270.1	2.93	1357	17.2	217.4	2.36
90	97	2370	15.2	14.6	15.2	18.4	20.0	2.13	4.3	10.5	0.29	3.76	43.1	105	2.05	0.112	0.103	11.1	0.55	4448	5457	301	89	D	M	0.1408	333.7	3.44	2265	15.0	317.3	3.27	1722	16.6	284.5	2.93	1373	17.5	236.9	2.44
95	102	2179	15.8	15.2	15.6	18.8	20.4	2.20	4.4	10.8	0.29	4.02	43.0	103	2.14	0.114	0.105	10.8	0.54	4390	5457	292	88	D	M	0.1562	340.3	3.33	2102	15.6	325.0	3.18	1667	17.0	296.5	2.90	1373	17.9	253.6	2.48
100	107	2013	16.4	15.8	15.9	19.2	20.8	2.27	4.6	11.1	0.29	4.27	42.8	102	2.23	0.116	0.107	10.5	0.54	4332	5457	284	86	D	M	0.1717	345.7	3.23	1951	16.1	331.4	3.09	1599	17.5	306.3	2.86	1352	18.3	267.7	2.50
105	112	1866	17.0	16.4	16.3	19.5	21.2	2.34	4.7	11.3	0.29	4.52	42.5	101	2.31	0.119	0.109	10.3	0.54	4274	5457	276	84	D	M	0.1877	350.2	3.12	1817	16.7	336.6	3.00	1531	17.9	314.4	2.80	1324	18.7	279.6	2.49
110	117	1735	17.6	16.9	16.6	19.9	21.5	2.40	4.8	11.6	0.29	4.77	42.2	100	2.40	0.121	0.111	10.1	0.53	4218	5457	269	83	D	M	0.2039	353.8	3.02	1697	17.2	340.9	2.91	1463	18.3	321.0	2.74	1288	19.1	289.6	2.47
115	122	1620	18.2	17.5	16.9	20.2	21.9	2.46	4.9	11.8	0.29	5.02	41.9	98	2.48	0.123	0.114	9.8	0.53	4164	5457	261	81	D	M	0.2202	356.7	2.92	1588	17.7	344.4	2.82	1396	18.8	326.3	2.67	1248	19.4	298.0	2.44
120	127	1517	18.7	18.0	17.2	20.5	22.2	2.53	5.0	12.0	0.29	5.27	41.6	97	2.57	0.125	0.116	9.6	0.53	4112	5457	255	80	D	M	0.2366	358.9	2.82	1491	18.2	347.2	2.73	1332	19.2	330.6	2.60	1206	19.8	304.9	2.40
125	132	1425	19.2	18.5	17.5	20.7	22.4	2.58	5.2	12.1	0.29	5.52	41.3	96	2.65	0.128	0.118	9.4	0.52	4062	5457	248	79	D	M	0.2531	360.6	2.73	1404	18.7	349.3	2.64	1271	19.6	334.0	2.53	1164	20.2	310.6	2.35
130	137	1342	19.7	19.0	17.8	21.0	22.7	2.64	5.3	12.3	0.30	5.76	41.0	95	2.73	0.130	0.120	9.2	0.52	4014	5457	242	77	D	M	0.2696	361.8	2.64	1325	19.2	350.9	2.56	1213	20.0	336.7	2.46	1121	20.6	315.3	2.30
135	142	1267	20.2	19.5	18.0	21.2	22.9	2.70	5.4	12.4	0.30	6.01	40.7	94	2.81	0.132	0.122	9.0	0.51	3968	5457	237	76	D	M	0.2862	362.6	2.55	1254	19.7	352.1	2.48	1159	20.4	338.7	2.38	1081	21.0	319.2	2.25
140	147	1200	20.7	20.0	18.2	21.5	23.2	2.75	5.5	12.5	0.30	6.25	40.4	93	2.89	0.135	0.125	8.9	0.51	3925	5457	232	75	D	M	0.3025	363.0	2.47	1188	20.1	352.9	2.40	1108	20.8	340.3	2.31	1040	21.4	322.3	2.19
145	152	1139	21.2	20.4	18.5	21.7	23.4	2.80	5.6	12.7	0.30	6.49	40.1	92	2.96	0.137	0.127	8.7	0.50	3884	5457	227	74	D	M	0.3188	363.1	2.39	1129	20.6	353.3	2.32	1060	21.2	341.3	2.24	1001	21.7	324.7	2.13
150	157	1083	21.6	20.9	18.7	21.9	23.6	2.86	5.7	12.8	0.30	6.72	39.8	91	3.04	0.139	0.129	8.6	0.50	3845	5457	222	73	D	M	0.3352	363.0	2.31	1076	21.0	353.4	2.25	1016	21.6	342.0	2.18	965	22.1	326.7	2.08
155	162	1033	22.1	21.3	18.9	22.1	23.8	2.90	5.8	12.8	0.31	6.96	39.5	90	3.11	0.141	0.131	8.4	0.50	3808	5457	217	72	D	M	0.3510	362.6	2.24	1024	21.4	353.3	2.18	974	22.0	342.4	2.11	929	22.5	328.1	2.02
160	167	986	22.5	21.8	19.1	22.3	24.0	2.95	5.8	12.9	0.31	7.19	39.2	89	3.18	0.143	0.133	8.3	0.49	3774	5457	213	71	D	M	0.3672	362.1	2.17	979	21.9	353.0	2.11	935	22.4	342.5	2.05	895	22.8	329.2	1.97
165	172	944	22.9	22.2	19.3	22.4	24.1	3.00	5.9	13.0	0.31	7.42	39.0	88	3.25	0.145	0.135	8.1	0.49	3742	5457	209	70	D	M	0.3828	361.4	2.10	939	22.3	352.5	2.05	900	22.8	342.3	1.99	865	23.2	329.9	1.92
170	177	905	23.3	22.6	19.4	22.6	24.3	3.05	6.0	13.1	0.31	7.65	38.7	87	3.32	0.147	0.137	8.0	0.49	3712	5457	206	69	C	M	0.3985	360.6	2.04	903	22.7	351.9	1.99	868	23.2	342.0	1.93	836	23.5	330.4	1.87
175	182	869	23.7	23.0	19.6	22.8	24.5	3.09	6.1	13.1	0.31	7.87	38.5	86	3.39	0.149	0.139	7.9	0.48	3684	5457	202	68	C	M	0.4139	359.7	1.98	864	23.1	351.1	1.93	834	23.5	341.5	1.88	805	23.9	330.5	1.81
180	187	836	24.1	23.4	19.8	22.9	24.6	3.14	6.2	13.1	0.32	8.10	38.3	85	3.46	0.151	0.140	7.8	0.48	3657	5457	199	68	C	M	0.4289	358.6	1.92	834	23.4	350.3	1.87	807	23.9	340.9	1.82	781	24.2	330.5	1.77

Table A71. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 15 m Initial Density = 20000 stems/ha																																								
5	12	19514	1.0	0.9	2.0	2.7	2.9	0.68	1.2	0.6	0.67	0.36	1.5	238	0.72	0.263	0.248	1.5	0.02	2443	6709	121	70	D	M	0.0001	1.5	0.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	18390	2.1	2.0	3.1	4.3	4.6	0.74	1.6	1.3	0.54	0.44	6.4	164	0.74	0.172	0.160	4.4	0.08	3055	6709	208	80	D	M	0.0005	10.1	0.59	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	16823	3.1	2.9	4.2	5.8	6.3	0.82	1.8	2.0	0.46	0.54	12.6	147	0.77	0.133	0.123	7.2	0.16	3641	6709	284	90	D	M	0.0016	27.4	1.24	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	15047	4.0	3.8	5.3	7.2	7.9	0.91	2.0	2.8	0.40	0.66	19.1	139	0.82	0.113	0.103	9.5	0.24	4143	6709	344	99	D	M	0.0035	52.2	1.93	66	7.9	0.8	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	32	13257	4.9	4.6	6.3	8.6	9.4	0.99	2.2	3.6	0.36	0.79	25.1	134	0.87	0.101	0.093	11.3	0.31	4536	6709	385	105	D	M	0.0062	81.9	2.55	681	8.1	9.6	0.30	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	37	11580	5.8	5.4	7.3	9.8	10.7	1.08	2.3	4.4	0.34	0.95	30.2	131	0.93	0.095	0.087	12.6	0.38	4825	6709	410	110	D	M	0.0098	113.6	3.06	1977	8.3	34.0	0.92	2	12.5	0.1	0.00	0	0.0	0.0	0.00
35	42	10080	6.6	6.2	8.2	10.9	11.9	1.17	2.5	5.1	0.32	1.11	34.4	127	1.00	0.092	0.083	13.4	0.44	5021	6709	424	112	D	M	0.0144	145.3	3.45	3310	8.6	69.7	1.66	31	12.7	1.9	0.05	1	14.4	0.1	0.00
40	47	8774	7.4	7.0	9.0	11.9	13.1	1.25	2.6	5.7	0.31	1.29	37.8	125	1.07	0.090	0.082	13.9	0.48	5143	6709	428	113	D	M	0.0200	175.6	3.73	4089	9.1	107.8	2.29	142	12.9	9.5	0.20	13	14.5	1.0	0.02
45	52	7657	8.2	7.8	9.7	12.8	14.1	1.34	2.8	6.3	0.30	1.48	40.3	122	1.14	0.089	0.081	14.1	0.52	5207	6709	426	113	D	M	0.0266	203.5	3.91	4456	9.5	144.7	2.78	370	13.1	27.1	0.52	63	14.7	5.2	0.10
50	57	6709	9.0	8.5	10.4	13.6	15.0	1.43	2.9	6.9	0.29	1.67	42.3	120	1.22	0.090	0.081	14.1	0.54	5228	6709	420	112	D	M	0.0341	228.8	4.01	4523	10.0	178.4	3.12	686	13.4	54.7	0.96	175	14.9	15.7	0.27
55	62	5906	9.7	9.2	11.1	14.4	15.8	1.51	3.1	7.4	0.29	1.88	43.7	118	1.30	0.090	0.082	14.0	0.56	5216	6709	411	111	D	M	0.0425	251.3	4.05	4402	10.5	208.1	3.35	1075	13.6	91.9	1.48	350	15.1	33.8	0.54
60	67	5227	10.4	9.9	11.7	15.1	16.6	1.59	3.2	7.9	0.28	2.09	44.7	116	1.38	0.092	0.083	13.8	0.57	5182	6709	400	109	D	M	0.0519	271.2	4.04	4180	11.1	233.8	3.48	1378	13.9	128.3	1.91	563	15.3	58.7	0.87
65	72	4652	11.1	10.6	12.3	15.7	17.3	1.67	3.3	8.4	0.28	2.31	45.3	114	1.47	0.093	0.085	13.6	0.58	5132	6709	389	107	D	M	0.0620	288.5	4.00	3916	11.6	255.9	3.55	1615	14.2	163.3	2.26	818	15.5	90.3	1.25
70	77	4162	11.8	11.3	12.8	16.3	17.9	1.75	3.5	8.8	0.28	2.53	45.7	112	1.55	0.095	0.086	13.3	0.58	5070	6709	377	105	D	M	0.0729	303.4	3.93	3634	12.1	274.7	3.56	1774	14.5	195.0	2.53	1015	15.8	120.9	1.57
75	82	3744	12.5	12.0	13.3	16.9	18.5	1.82	3.6	9.2	0.28	2.75	45.9	111	1.63	0.097	0.088	13.0	0.59	5002	6709	365	103	D	M	0.0845	316.2	3.85	3361	12.7	290.7	3.54	1868	14.9	222.7	2.71	1175	16.1	150.8	1.84
80	87	3385	13.1	12.6	13.8	17.4	19.1	1.90	3.8	9.6	0.28	2.98	46.0	109	1.72	0.099	0.090	12.7	0.59	4929	6709	353	101	D	M	0.0967	327.2	3.76	3102	13.2	304.1	3.49	1908	15.3	246.4	2.83	1295	16.4	178.5	2.05
85	92	3075	13.8	13.2	14.2	17.8	19.6	1.97	3.9	9.9	0.28	3.21	45.9	108	1.80	0.101	0.092	12.4	0.58	4854	6709	342	99	D	M	0.1094	336.4	3.65	2867	13.8	315.5	3.43	1910	15.7	266.3	2.89	1377	16.7	203.5	2.21
90	97	2807	14.4	13.8	14.6	18.2	20.0	2.04	4.0	10.3	0.28	3.44	45.7	107	1.89	0.103	0.094	12.0	0.58	4778	6709	331	97	D	M	0.1226	344.2	3.54	2647	14.3	325.0	3.35	1878	16.0	282.9	2.91	1421	17.1	225.4	2.32
95	102	2573	15.0	14.4	15.0	18.6	20.4	2.11	4.2	10.5	0.28	3.67	45.4	105	1.97	0.106	0.096	11.7	0.58	4702	6709	320	95	D	M	0.1363	350.7	3.43	2450	14.8	332.9	3.26	1831	16.4	296.5	2.90	1441	17.4	244.3	2.39
100	107	2369	15.6	15.0	15.4	19.0	20.8	2.17	4.3	10.8	0.28	3.91	45.1	104	2.05	0.108	0.099	11.4	0.57	4628	6709	311	93	D	M	0.1503	356.0	3.32	2275	15.3	339.5	3.17	1773	16.8	307.8	2.87	1441	17.7	260.6	2.43
105	112	2189	16.1	15.5	15.7	19.4	21.2	2.24	4.4	11.1	0.28	4.14	44.8	103	2.14	0.110	0.101	11.2	0.57	4556	6709	301	91	D	M	0.1646	360.3	3.21	2113	15.9	344.8	3.08	1704	17.2	317.0	2.83	1422	18.1	274.3	2.45
110	117	2030	16.7	16.1	16.0	19.7	21.5	2.30	4.5	11.3	0.28	4.37	44.4	102	2.22	0.113	0.103	10.9	0.56	4486	6709	292	89	D	M	0.1792	363.8	3.11	1972	16.4	349.2	2.98	1635	17.6	324.5	2.77	1396	18.5	285.9	2.44
115	122	1890	17.2	16.6	16.3	20.0	21.9	2.36	4.7	11.5	0.29	4.61	44.1	100	2.30	0.115	0.105	10.6	0.56	4419	6709	284	87	D	M	0.1939	366.5	3.00	1842	16.9	352.7	2.89	1565	18.0	330.5	2.71	1362	18.8	295.7	2.42
120	127	1764	17.8	17.1	16.6	20.3	22.2	2.42	4.8	11.7	0.29	4.84	43.7	99	2.38	0.117	0.107	10.4	0.55	4354	6709	276	85	D	M	0.2090	368.6	2.90	1726	17.3	355.4	2.80	1496	18.4	335.4	2.64	1323	19.2	303.8	2.39
125	132	1653	18.3	17.6	16.9	20.5	22.4	2.48	4.9	11.9	0.29	5.07	43.3	98	2.46	0.120	0.110	10.1	0.55	4292	6709	269	84	D	M	0.2239	370.1	2.80	1622	17.8	357.5	2.71	1430	18.8	339.2	2.57	1281	19.5	310.5	2.35
130	137	1553	18.8	18.1	17.1	20.8	22.7	2.53	5.0	12.0	0.29	5.30	42.9	97	2.54	0.122	0.112	9.9	0.54	4233	6709	262	82	D	M	0.2390	371.1	2.71	1528	18.3	359.0	2.62	1365	19.2	342.2	2.50	1238	19.9	316.0	2.30
135	142	1462	19.2	18.5	17.4	21.0	22.9	2.59	5.1	12.2	0.29	5.53	42.5	96	2.62	0.124	0.114	9.7	0.54	4177	6709	255	81	D	M	0.2542	371.6	2.62	1442	18.7	360.1	2.53	1305	19.6	344.4	2.42	1196	20.2	320.5	2.26
140	147	1381	19.7	19.0	17.6	21.3	23.2	2.64	5.2	12.3	0.29	5.76	42.1	95	2.69	0.127	0.116	9.5	0.53	4124	6709	249	79	D	M	0.2693	371.9	2.53	1362	19.2	360.7	2.45	1245	20.0	346.1	2.35	1151	20.6	324.1	2.20
145	152	1308	20.2	19.5	17.8	21.5	23.4	2.69	5.3	12.4	0.30	5.98	41.8	94	2.77	0.129	0.118	9.3	0.53	4074	6709	244	78	D	M	0.2843	371.8	2.44	1293	19.6	361.0	2.37	1193	20.4	347.2	2.28	1111	21.0	327.1	2.15
150	157	1241	20.6	19.9	18.0	21.7	23.6	2.74	5.4	12.5	0.30	6.20	41.4	93	2.84	0.131	0.120	9.1	0.52	4026	6709	238	77	D	M	0.2993	371.4	2.36	1227	20.0	361.0	2.30	1142	20.8	348.0	2.22	1070	21.3	329.3	2.10
155	162	1180	21.1	20.3	18.2	21.9	23.8	2.79	5.5	12.6	0.30	6.43	41.1	92	2.91	0.133	0.122	9.0	0.52	3981	6709	233	76	D	M	0.3142	370.8	2.29	1170	20.5	360.7	2.23	1097	21.2	348.3	2.15	1034	21.7	331.1	2.04
160	167	1125	21.5	20.7	18.4	22.0	24.0	2.84	5.6	12.7	0.30	6.65	40.8	91	2.98	0.135	0.124	8.8	0.51	3938	6709	228	75	D	M	0.3289	370.0	2.21	1114	20.9	360.2	2.16	1050	21.5	348.4	2.08	995	22.0	332.4	1.99
165	172	1074	21.9	21.2	18.6	22.2	24.1	2.88	5.7	12.8	0.30	6.87	40.4	90	3.05	0.137	0.126	8.6	0.51	3898	6709	224	74	D	M	0.3437	369.1	2.14	1065	21.3	359.5	2.09	1010	21.9	348.2	2.02	961	22.3	333.3	1.94
170	177	1027	22.3	21.6	18.8	22.4	24.3	2.93	5.8	12.8	0.31	7.08	40.1	89	3.12	0.139	0.128	8.5	0.50	3861	6709	219	73	D	M	0.3583	368.0	2.08	1019	21.7	358.7	2.03	970	22.2	347.7	1.96	927	22.7	333.8	1.88
175	182	984	22.7	21.9	18.9	22.5	24.5	2.97	5.8	12.9	0.31	7.30	39.9	88	3.19	0.141	0.130	8.4	0.50	3825	6709	215	72	D	M	0.3728	366.8	2.01	979	22.0	357.7	1.96	935	22.6	347.1	1.91	894	23.0	333.9	1.83
180	187	945	23.1	22.3	19.1	22.7	24.6	3.02	5.9	12.9	0.31	7.51	39.6	87	3.25	0.143	0.132	8.2	0.49	3792	6709	212	71	D	M	0.3869	365.6	1.95	939	22.4	356.6	1.91	900	22.9	346.4	1.85	864	23.4	334.0	1.79
SI = 15 m Initial Density = 30000 stems/ha																																								
5	12	29172	0.9	0.8	1.9	2.7	2.9	0.67	1.1	0.6	0.64	0.35	1.7	270	0.59	0.216	0.203	1.8	0.02	3536	9011	165	103	D	M	0.0001	1.6	0.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	27260	1.8	1.7	3.0	4.3	4.6	0.73	1.4	1.3	0.52	0.42	7.4	177	0.61	0.142	0.132	5.4	0.09	4244	9011	274	113	D	M	0.0004	11.0	0.64	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	24634	2.8	2.6	4.0	5.8	6.3	0.79	1.6	2.0	0.43	0.50	14.6	156	0.64	0.110	0.101	8.8	0.19	4872	9011	367	123	D	M	0.0012	30.0	1.36	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	21721	3.6	3.4	5.1	7.2	7.9	0.87	1.8	2.8	0.38	0.60	22.0	147	0.68	0.094	0.086	11.6	0.28	5365	9011	435	130	D	M	0.0026	56.9	2.10	12	7.8	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	32	18859	4.4	4.1	6.0	8.5	9.4	0.94	1.9	3.5	0.35	0.71	28.7	141	0.73	0.086	0.078	13.7	0.37	5717	9011	480	135	D	M	0.0047	88.5	2.76	318	7.9	4.1	0.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	37	16244	5.2	4.9	6.9	9.7	10.7	1.02	2.1	4.2	0.32	0.84	34.3	136	0.78	0.081	0.073	15.1	0.44	5943	9011	505	137	D	M	0.0075	121.8	3.28	1424	8.1	21.6	0.58	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	42	13960	5.9	5.6	7.7	10.8	11.9	1.10	2.2	4.8	0.31	0.98	38.8	132	0.85	0.079	0.071	15.9	0.50	6068	9011	515	137	D	M	0.0111	154.7	3.67	2998	8.3	54.3	1.29	6	12.6	0.3	0.01	0	0.0	0.0	0.00
40	47	12013	6.7	6.3	8.5	11.8	13.1	1.18	2.3	5.5	0.29	1.13	42.3	129	0.91	0.078	0.070	16.3	0.55	6118	9011	515	136	D	M	0.0155	185.8	3.94	4164	8.7	93.0	1.97	44	12.7	2.9	0.06	2	14.4	0.1	0.00
45	52	10377	7.4	7.0	9.2	12.7	14.1	1.26	2.5	6.0	0.29	1.29	44.9	126	0.98	0.078	0.070	16.5	0.58	6113	9011	508	134	D	M	0.0207	214.3	4.11	4878	9.1	132.7	2.55	169	12.9	11.8	0.23	16	14.5	1.3	0.02
50	57	9011	8.1	7.7	9.9	13.5	15.0	1.33	2.6	6.6	0.28	1.46	46.8	124	1.05	0.078	0.070	16.4	0.61	6069	9011	497	132	D	M	0.0266	239.9	4.20	5185	9.5	169.8	2.97	404	13.1	30.2	0.53	65	14.7	5.5	0.10
55	62	7870	8.8	8.4	10.5	14.2	15.8	1.41	2.8	7.1	0.28	1.64	48.2	121	1.13	0.079	0.071	16.2	0.62	5999	9011	483	129	D	M	0.0334	262.6	4.23	5200	9.9	202.7	3.26	764	13.2	60.8	0.98	170	14.8	15.5	0.25
60	67	6916	9.5	9.0	11.1	14.9	16.6	1.49	2.9	7.5	0.27	1.82	49.1	119	1.20	0.081	0.072	15.9	0.64	5911	9011	468	126	D	M	0.0408	282.5	4.21	5039	10.4	231.2	3.45	1110	13.5	94.9	1.41	334	15.0	32.4	0.48
65	72	6115	10.2	9.7	11.6	15.5	17.3	1.56	3.0	8.0	0.27	2.01	49.6	117	1.28	0.082	0.074	15.6	0.64	5813	9011	452	123	D	M	0.0490	299.8	4.16	4780	10.9	255.5	3.54	1420	13.8	130.8	1.81	568	15.2	57.9	0.80
70	77	5440	10.8	10.3	12.1	16.1	17.9	1.63	3.2	8.4	0.27	2.20	49.9	116	1.36	0.084	0.076	15.2	0.64	5708	9011	436	120	D	M	0.0578	314.7	4.08	4478	11.3	276.1	3.58	1670	14.0	165.5	2.15	787	15.4	85.6	1.11
75	82	4867	11.4	10.9	12.6	16.6	18.5	1.70	3.3	8.8	0.27	2.40	49.9	114	1.43	0.086	0.077	14.8	0.64	5600	9011	421	117	D	M	0.0673	327.4	3.99	4166	11.8	293.5	3.57	1852	14.3	197.2	2.40	991	15.6	115.0	1.40
80	87	4379	12.0	11.5	13.0	17.1	19.1	1.77	3.4	9.1	0.27	2.60	49.8	112	1.51	0.088	0.079	14.4	0.64	5491	9011	406	114	D	M	0.0772	338.2	3.88	3860	12.3	308.1	3.54	1967	14.7	225.2	2.59	1163	15.9	144.1	1.65
85	92	3960	12.6	12.1	13.4	17.6	19.6	1.84	3.6	9.5	0.27	2.80	49.6	111	1.59	0.090	0.081	14.0	0.64	5383	9011	391	111	D	M	0.0877	347.4	3.77	3571	12.8	320.4	3.48	2029	15.0	249.2	2.71	1299	16.2	171.6	1.86
90	97	3598	13.2	12.6	13.8	18.0	20.0	1.90	3.7	9.8	0.27	3.00	49.3	110	1.67	0.093	0.083	13.6	0.63	5277	9011	378	108	D	M	0.0987	355.0	3.66	3304	13.3	330.5	3.40	2047	15.3	269.5	2.78	1398	16.4	196.7	2.03
95	102	3285	13.8	13.2	14.2	18.4	20.4	1.97	3.8	10.1	0.27	3.20	48.9	108	1.74	0.095	0.085	13.2	0.63	5174	9011	365	105	D	M	0.1100	361.4	3.54	3059	13.7	339.0	3.32	2033	15.7	286.4	2.81	1464	16.7	219.1	2.15
100	107	3012	14.3	13.7	14.5	18.8	20.8	2.03	3.9	10.3	0.27	3.41	48.5	107	1.82	0.097	0.087	12.8	0.62	5075	9011	352	103	D	M	0.1217	366.6	3.42	2837	14.2	346.0	3.23	1997	16.0	300.5	2.81	1502	17.0	238.6	2.23
105	112	2773	14.8	14.2	14.8	19.1	21.2	2.09	4.1	10.6	0.27	3.62	48.0	106	1.90	0.099	0.090	12.5	0.61	4979	9011	341	100	D	M	0.1337	370.8	3.31	2634	14.7	351.7	3.14	1943	16.4	312.0	2.78	1515	17.3	255.6	2.28
110	117	2563	15.4	14.8	15.1	19.4	21.5	2.15	4.2	10.8	0.28	3.82	47.5	104	1.98	0.102	0.092	12.1	0.61	4888	9011	330	98	D	M	0.1460	374.1	3.19	2452	15.2	356.3	3.04	1882	16.7	321.4	2.74	1513	17.6	270.1	2.31
115	122	2377	15.9	15.2	15.4	19.7	21.9	2.21	4.3	11.0	0.28	4.03	47.1	103	2.05	0.104	0.094	11.8	0.60	4800	9011	320	96	D	M	0.1584	376.6	3.08	2289	15.6	359.9	2.95	1816	17.1	329.1	2.70	1498	17.9	282.4	2.31
120	127	2212	16.4	15.7	15.7	20.0	22.2	2.26	4.4	11.2	0.28	4.24	46.6	102	2.13	0.106	0.096	11.5	0.59	4716	9011	310	94	D	M	0.1711	378.5	2.98	2139	16.1	362.7	2.85	1743	17.4	335.2	2.64	1469	18.3	292.7	2.30
125	132	2064	16.9	16.2	15.9	20.2	22.4	2.32	4.5	11.4	0.28	4.44	46.1	101	2.20	0.109	0.098	11.2	0.59	4637	9011	301	92	D	M	0.1840	379.8	2.88	2005	16.5	364.9	2.76	1673	17.8	340.1	2.57	1436	18.6	301.4	2.28
130	137	1933	17.3	16.7	16.2	20.5	22.7	2.37	4.6	11.6	0.28	4.65	45.6	100	2.27	0.111	0.100	10.9	0.58	4561	9011	293	90	D	M	0.1969	380.6	2.78	1886	16.9	366.4	2.67	1605	18.1	344.0	2.51	1401	18.9	308.7	2.25
135	142	1815	17.8	17.1	16.4	20.7	22.9	2.42	4.7	11.7	0.28	4.85	45.1	99	2.35	0.113	0.102	10.7	0.57	4489	9011	285	88	D	M	0.2099	380.9	2.68	1775	17.4	367.4	2.59	1538	18.5	346.9	2.44	1361	19.2	314.7	2.21
140	147	1708	18.2	17.6	16.6	20.9	23.2	2.47	4.8	11.8	0.29	5.06	44.6	98	2.42	0.116	0.104	10.5	0.56	4421	9011	277	86	D	M	0.2230	380.9	2.59	1675	17.8	368.0	2.50	1473	18.8	349.1	2.37	1319	19.5	319.6	2.17
145	152	1612	18.7	18.0	16.8	21.2	23.4	2.52	4.9	12.0	0.29	5.26	44.2	97	2.49	0.118	0.106	10.2	0.56	4356	9011	270	85	D	M	0.2361	380.6	2.50	1583	18.2	368.2	2.42	1409	19.2	350.7	2.31	1275	19.9	323.6	2.13
150	157	1525	19.1	18.4	17.0	21.4	23.6	2.57	5.0	12.1	0.29	5.46	43.7	96	2.56	0.120	0.109	10.0	0.55	4295	9011	264	83	D	M	0.2492	380.0	2.42	1501	18.6	368.0	2.34	1353	19.5	351.7	2.24	1235	20.2	326.7	2.08
155	162	1445	19.5	18.8	17.2	21.5	23.8	2.62	5.1	12.2	0.29	5.67	43.3	95	2.63	0.122	0.111	9.8	0.54	4237	9011	257	82	D	M	0.2624	379.1	2.34	1425	19.0	367.6	2.27	1297	19.9	352.3	2.17	1193	20.5	329.2	2.03
160	167	1373	19.9	19.2	17.4	21.7	24.0	2.66	5.2	12.3	0.29	5.87	42.9	94	2.70	0.124	0.113	9.6	0.54	4182	9011	252	81	D	M	0.2754	378.1	2.26	1356	19.4	366.9	2.20	1244	20.2	352.5	2.11	1153	20.8	331.2	1.98
165	172	1307	20.3	19.6	17.6	21.9	24.1	2.71	5.3	12.4	0.30	6.06	42.5	93	2.77	0.126	0.115	9.4	0.53	4130	9011	246	79	D	M	0.2884	376.9	2.19	1292	19.8	366.1	2.13	1194	20.6	352.4	2.05	1114	21.1	332.6	1.93
170	177	1247	20.7	20.0	17.7	22.0	24.3	2.75	5.4	12.4	0.30	6.26	42.1	92	2.83	0.128	0.116	9.2	0.53	4082	9011	241	78	D	M	0.3011	375.5	2.12	1233	20.2	365.0	2.06	1147	20.9	352.0	1.99	1077	21.4	333.6	1.88
175	182	1191	21.1	20.4	17.9	22.2	24.5	2.80	5.5	12.5	0.30	6.46	41.7	91	2.90	0.131	0.118	9.1	0.52	4035	9011	236	77	D	M	0.3141	374.1	2.05	1180	20.5	363.8	2.00	1104	21.2	351.4	1.93	1037	21.8	333.9	1.83
180	187	1140	21.5	20.7	18.0	22.3	24.6	2.84	5.5	12.5	0.30	6.65	41.4	90	2.96	0.133	0.120	8.9	0.52	3992	9011	231	76	D	M	0.3268	372.5	1.99	1130	20.9	362.5	1.94	1064	21.5	350.6	1.87	1004	22.1	334.3	1.79

Table A72. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 15 m Initial Density = 50000 stems/ha																																								
5	12	48411	0.7	0.6	1.8	2.7	2.9	0.67	1.0	0.7	0.60	0.35	1.8	325	0.45	0.169	0.157	2.2	0.03	5654	13159	244	168	D	M	0.0000	1.6	0.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	44750	1.6	1.5	2.8	4.2	4.6	0.71	1.2	1.3	0.48	0.39	8.6	198	0.47	0.112	0.103	6.9	0.12	6463	13159	387	177	D	M	0.0003	12.1	0.71	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	39814	2.3	2.2	3.8	5.7	6.3	0.76	1.4	2.0	0.40	0.46	17.3	170	0.50	0.088	0.080	11.3	0.23	7076	13159	503	183	D	M	0.0008	32.8	1.48	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	34490	3.1	2.9	4.7	7.1	7.9	0.82	1.5	2.6	0.36	0.54	25.8	158	0.54	0.076	0.068	14.7	0.34	7471	13159	582	185	D	M	0.0018	61.7	2.28	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	32	29417	3.8	3.6	5.5	8.4	9.4	0.89	1.6	3.3	0.32	0.63	33.4	150	0.58	0.069	0.062	17.1	0.44	7678	13159	630	185	D	M	0.0032	95.0	2.96	59	7.8	0.7	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	37	24922	4.5	4.2	6.4	9.6	10.7	0.95	1.8	3.9	0.30	0.73	39.6	144	0.63	0.066	0.059	18.7	0.52	7742	13159	651	182	D	M	0.0052	129.5	3.49	611	7.9	8.1	0.22	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	42	21100	5.2	4.9	7.1	10.6	11.9	1.02	1.9	4.5	0.29	0.84	44.4	139	0.69	0.065	0.058	19.5	0.59	7708	13159	655	177	D	M	0.0077	163.0	3.87	2000	8.0	30.3	0.72	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	47	17922	5.8	5.5	7.8	11.6	13.1	1.09	2.0	5.1	0.28	0.96	48.0	135	0.75	0.064	0.057	19.9	0.63	7609	13159	646	172	D	M	0.0108	194.2	4.12	3503	8.3	63.9	1.36	5	12.5	0.3	0.01	0	0.0	0.0	0.00
45	52	15307	6.5	6.1	8.4	12.5	14.1	1.16	2.2	5.6	0.27	1.09	50.6	132	0.81	0.065	0.057	19.9	0.67	7470	13159	631	167	D	M	0.0145	222.5	4.27	4741	8.6	103.4	1.98	32	12.7	2.1	0.04	1	14.3	0.1	0.00
50	57	13159	7.1	6.7	9.0	13.3	15.0	1.22	2.3	6.1	0.27	1.23	52.4	129	0.87	0.066	0.058	19.6	0.69	7309	13159	611	161	D	M	0.0188	247.7	4.34	5537	8.9	143.0	2.50	122	12.8	8.6	0.15	8	14.4	0.7	0.01
55	62	11394	7.7	7.3	9.6	14.0	15.8	1.29	2.4	6.5	0.27	1.37	53.6	126	0.94	0.067	0.059	19.3	0.71	7135	13159	589	156	D	M	0.0237	269.9	4.35	5920	9.2	179.7	2.89	334	12.9	24.5	0.39	37	14.6	3.1	0.05
60	67	9936	8.3	7.9	10.1	14.7	16.6	1.36	2.5	6.9	0.26	1.52	54.4	124	1.00	0.068	0.060	18.8	0.71	6956	13159	567	151	D	M	0.0291	289.3	4.31	5995	9.6	211.9	3.16	610	13.1	47.6	0.71	103	14.7	9.3	0.14
65	72	8725	8.9	8.5	10.6	15.3	17.3	1.42	2.7	7.4	0.26	1.67	54.7	122	1.07	0.070	0.062	18.3	0.72	6778	13159	544	146	D	M	0.0351	306.1	4.25	5868	10.0	239.7	3.32	930	13.3	76.9	1.07	240	14.8	22.3	0.31
70	77	7713	9.5	9.1	11.1	15.8	17.9	1.49	2.8	7.7	0.26	1.82	54.8	120	1.14	0.072	0.063	17.8	0.72	6602	13159	523	141	D	M	0.0416	320.5	4.16	5623	10.4	263.3	3.41	1248	13.5	109.5	1.42	407	14.9	39.9	0.52
75	82	6862	10.1	9.6	11.5	16.4	18.5	1.55	2.9	8.1	0.26	1.98	54.7	118	1.21	0.074	0.065	17.2	0.71	6431	13159	502	136	D	M	0.0485	332.9	4.05	5315	10.8	283.1	3.45	1528	13.7	142.5	1.74	599	15.1	62.1	0.76
80	87	6141	10.6	10.1	11.9	16.8	19.1	1.61	3.0	8.4	0.26	2.15	54.4	116	1.28	0.076	0.067	16.7	0.71	6267	13159	481	132	D	M	0.0559	343.3	3.94	4982	11.2	299.7	3.44	1757	14.0	174.0	2.00	797	15.3	87.2	1.00
85	92	5526	11.2	10.6	12.2	17.3	19.6	1.67	3.2	8.7	0.26	2.31	54.0	115	1.35	0.078	0.069	16.2	0.70	6109	13159	463	128	D	M	0.0637	352.2	3.82	4649	11.6	313.5	3.40	1927	14.2	202.7	2.20	983	15.5	113.4	1.23
90	97	4998	11.7	11.2	12.6	17.7	20.0	1.73	3.3	9.0	0.26	2.48	53.5	113	1.41	0.080	0.071	15.7	0.69	5958	13159	445	124	D	M	0.0719	359.5	3.70	4327	12.0	325.0	3.35	2045	14.5	228.0	2.35	1147	15.7	139.5	1.44
95	102	4543	12.2	11.6	12.9	18.0	20.4	1.79	3.4	9.3	0.26	2.65	53.0	112	1.48	0.082	0.073	15.2	0.69	5814	13159	428	120	D	M	0.0805	365.6	3.58	4023	12.4	334.5	3.28	2114	14.8	250.0	2.45	1281	16.0	164.3	1.61
100	107	4148	12.7	12.1	13.2	18.4	20.8	1.84	3.5	9.6	0.27	2.82	52.4	111	1.55	0.084	0.075	14.7	0.68	5677	13159	412	117	D	M	0.0893	370.6	3.46	3740	12.8	342.4	3.20	2143	15.0	268.8	2.51	1384	16.2	187.3	1.75
105	112	3803	13.2	12.6	13.5	18.7	21.2	1.90	3.6	9.8	0.27	2.99	51.8	109	1.62	0.087	0.077	14.3	0.67	5547	13159	397	114	D	M	0.0985	374.6	3.34	3481	13.2	348.8	3.11	2144	15.3	284.6	2.54	1463	16.4	208.1	1.86
110	117	3501	13.6	13.1	13.8	19.0	21.5	1.95	3.7	10.0	0.27	3.16	51.2	108	1.69	0.089	0.078	13.9	0.66	5424	13159	384	111	D	M	0.1079	377.7	3.23	3244	13.7	354.0	3.02	2123	15.6	297.7	2.54	1515	16.7	226.6	1.94
115	122	3234	14.1	13.5	14.0	19.3	21.9	2.00	3.8	10.2	0.27	3.33	50.6	107	1.76	0.091	0.080	13.5	0.65	5307	13159	371	108	D	M	0.1175	380.1	3.11	3028	14.1	358.1	2.93	2084	15.9	308.7	2.53	1545	16.9	242.8	1.99
120	127	2998	14.6	14.0	14.3	19.6	22.2	2.06	3.9	10.4	0.27	3.50	49.9	106	1.83	0.093	0.082	13.1	0.64	5196	13159	359	105	D	M	0.1274	381.8	3.00	2830	14.4	361.3	2.84	2033	16.2	317.6	2.50	1559	17.2	256.9	2.02
125	132	2788	15.0	14.4	14.5	19.8	22.4	2.11	4.1	10.6	0.27	3.68	49.3	104	1.89	0.095	0.084	12.7	0.63	5091	13159	347	103	D	M	0.1374	383.0	2.90	2650	14.8	363.8	2.75	1974	16.5	325.0	2.46	1556	17.4	269.1	2.04
130	137	2601	15.4	14.8	14.7	20.1	22.7	2.16	4.2	10.8	0.28	3.85	48.7	103	1.96	0.098	0.086	12.4	0.62	4992	13159	337	100	D	M	0.1475	383.6	2.80	2486	15.2	365.6	2.67	1911	16.8	330.8	2.41	1542	17.7	279.5	2.04
135	142	2433	15.9	15.2	14.9	20.3	22.9	2.20	4.3	10.9	0.28	4.02	48.1	102	2.03	0.100	0.088	12.1	0.61	4898	13159	327	98	D	M	0.1577	383.8	2.70	2337	15.6	366.8	2.58	1846	17.1	335.5	2.36	1522	18.0	288.4	2.03
140	147	2282	16.3	15.6	15.1	20.5	23.2	2.25	4.4	11.1	0.28	4.20	47.5	101	2.09	0.102	0.090	11.8	0.60	4809	13159	317	96	D	M	0.1681	383.7	2.61	2204	16.0	367.6	2.50	1781	17.4	339.2	2.31	1495	18.2	295.9	2.01
145	152	2146	16.7	16.0	15.3	20.7	23.4	2.30	4.4	11.2	0.28	4.37	46.9	100	2.16	0.104	0.092	11.5	0.59	4725	13159	309	94	D	M	0.1786	383.2	2.52	2079	16.4	367.9	2.42	1716	17.7	342.0	2.25	1464	18.5	302.1	1.99
150	157	2023	17.1	16.4	15.5	20.9	23.6	2.34	4.5	11.3	0.28	4.54	46.4	99	2.22	0.106	0.094	11.2	0.59	4645	13159	300	92	D	M	0.1890	382.4	2.43	1963	16.7	367.8	2.34	1652	18.0	344.1	2.19	1429	18.8	307.3	1.96
155	162	1911	17.5	16.8	15.7	21.1	23.8	2.38	4.6	11.4	0.29	4.71	45.9	98	2.29	0.109	0.096	11.0	0.58	4570	13159	292	90	D	M	0.1996	381.4	2.35	1861	17.1	367.4	2.27	1590	18.3	345.6	2.13	1393	19.0	311.6	1.92
160	167	1809	17.9	17.2	15.8	21.2	24.0	2.43	4.7	11.5	0.29	4.88	45.3	97	2.35	0.111	0.098	10.7	0.57	4498	13159	285	88	D	M	0.2102	380.2	2.28	1767	17.4	366.8	2.20	1530	18.6	346.6	2.07	1355	19.3	315.1	1.89
165	172	1716	18.2	17.5	16.0	21.4	24.1	2.47	4.8	11.6	0.29	5.06	44.8	96	2.41	0.113	0.100	10.5	0.56	4431	13159	278	87	D	M	0.2207	378.8	2.20	1678	17.8	365.9	2.13	1471	18.9	347.1	2.02	1315	19.6	317.9	1.85
170	177	1631	18.6	17.9	16.1	21.6	24.3	2.51	4.9	11.7	0.29	5.23	44.4	95	2.48	0.115	0.102	10.3	0.55	4367	13159	272	85	D	M	0.2313	377.3	2.13	1597	18.1	364.8	2.06	1415	19.2	347.2	1.96	1267	19.9	319.5	1.80
175	182	1553	19.0	18.2	16.3	21.7	24.5	2.55	5.0	11.8	0.29	5.39	43.9	94	2.54	0.117	0.104	10.1	0.55	4306	13159	266	84	D	M	0.2419	375.6	2.06	1523	18.5	363.6	2.00	1362	19.5	347.0	1.91	1230	20.2	321.3	1.76
180	187	1482	19.3	18.6	16.4	21.8	24.6	2.59	5.1	11.9	0.30	5.56	43.4	93	2.60	0.119	0.105	9.9	0.54	4249	13159	260	82	D	M	0.2523	373.9	2.00	1457	18.8	362.2	1.94	1314	19.7	346.5	1.85	1196	20.4	322.6	1.72
SI = 15 m Initial Density = 80000 stems/ha																																								
5	12	77151	0.5	0.5	1.7	2.7	2.9	0.66	0.9	0.7	0.57	0.34	1.8	399	0.36	0.134	0.125	2.4	0.03	8739	18776	352	264	D	M	0.0000	1.6	0.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	70602	1.3	1.2	2.6	4.2	4.6	0.69	1.1	1.3	0.45	0.38	9.7	221	0.38	0.090	0.082	8.4	0.14	9583	18776	532	267	D	M	0.0002	12.7	0.74	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	61923	2.0	1.9	3.5	5.7	6.3	0.74	1.2	1.9	0.38	0.43	19.6	185	0.40	0.071	0.064	13.8	0.27	10052	18776	670	265	D	M	0.0006	34.6	1.57	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	52795	2.7	2.5	4.3	7.0	7.9	0.79	1.3	2.5	0.34	0.49	29.3	169	0.44	0.062	0.055	18.0	0.40	10203	18776	758	258	D	M	0.0012	64.6	2.38	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	32	44332	3.3	3.1	5.1	8.3	9.4	0.84	1.4	3.1	0.31	0.56	37.6	159	0.47	0.057	0.051	20.8	0.51	10128	18776	803	249	D	M	0.0022	98.5	3.07	4	7.7	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	37	37027	3.9	3.7	5.8	9.5	10.7	0.89	1.5	3.7	0.29	0.64	44.2	152	0.52	0.055	0.049	22.4	0.60	9917	18776	817	237	D	M	0.0036	132.9	3.58	141	7.7	1.7	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	42	30960	4.5	4.2	6.5	10.5	11.9	0.95	1.7	4.2	0.28	0.73	49.2	146	0.57	0.054	0.048	23.2	0.66	9632	18776	810	226	D	M	0.0054	165.8	3.94	883	7.8	11.5	0.27	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	47	26016	5.1	4.8	7.1	11.5	13.1	1.01	1.8	4.7	0.27	0.83	52.9	141	0.62	0.054	0.047	23.4	0.71	9315	18776	790	215	D	M	0.0075	196.1	4.16	2177	8.0	33.4	0.71	0	0.0	0.0	0.00	0	0.0	0.0	0.00
45	52	22014	5.7	5.3	7.7	12.3	14.1	1.07	1.9	5.1	0.26	0.93	55.4	137	0.67	0.055	0.048	23.3	0.74	8989	18776	764	204	D	M	0.0101	223.2	4.28	3658	8.2	65.6	1.26	2	12.5	0.2	0.00	0	0.0	0.0	0.00
50	57	18776	6.2	5.9	8.2	13.1	15.0	1.13	2.0	5.5	0.26	1.04	57.1	134	0.73	0.056	0.049	22.9	0.76	8668	18776	734	195	D	M	0.0132	247.3	4.33	4932	8.5	102.8	1.80	18	12.6	1.2	0.02	0	0.0	0.0	0.00
55	62	16145	6.8	6.4	8.7	13.8	15.8	1.19	2.1	5.9	0.26	1.15	58.2	131	0.79	0.057	0.050	22.4	0.78	8358	18776	703	186	D	M	0.0166	268.3	4.32	5819	8.7	140.2	2.26	82	12.6	5.7	0.09	3	14.4	0.3	0.00
60	67	13993	7.3	6.9	9.2	14.4	16.6	1.24	2.2	6.3	0.26	1.27	58.7	128	0.85	0.059	0.051	21.7	0.78	8063	18776	672	178	D	M	0.0205	286.5	4.27	6320	9.0	175.0	2.61	211	12.8	15.3	0.23	16	14.5	1.4	0.02
65	72	12222	7.8	7.4	9.6	15.0	17.3	1.30	2.4	6.7	0.26	1.39	58.9	126	0.90	0.060	0.052	21.0	0.78	7785	18776	642	170	D	M	0.0247	302.3	4.19	6507	9.3	205.8	2.85	412	12.9	31.4	0.44	57	14.5	4.9	0.07
70	77	10752	8.3	7.9	10.0	15.6	17.9	1.36	2.5	7.0	0.26	1.52	58.8	123	0.96	0.062	0.054	20.4	0.78	7523	18776	613	163	D	M	0.0294	315.8	4.10	6474	9.6	232.4	3.01	670	13.1	53.4	0.69	130	14.6	11.7	0.15
75	82	9523	8.8	8.4	10.3	16.1	18.5	1.41	2.6	7.3	0.26	1.64	58.5	121	1.02	0.064	0.055	19.7	0.77	7277	18776	586	157	D	M	0.0344	327.3	3.99	6295	9.9	255.0	3.11	951	13.3	79.6	0.97	238	14.8	22.6	0.28
80	87	8487	9.3	8.9	10.7	16.5	19.1	1.47	2.7	7.7	0.26	1.78	58.1	120	1.09	0.066	0.057	19.0	0.76	7047	18776	561	151	D	M	0.0397	337.1	3.87	6031	10.3	274.0	3.15	1229	13.4	107.9	1.24	381	14.9	37.6	0.43
85	92	7609	9.8	9.3	11.0	17.0	19.6	1.52	2.8	7.9	0.26	1.91	57.5	118	1.15	0.068	0.059	18.4	0.75	6831	18776	537	145	D	M	0.0454	345.3	3.75	5720	10.6	289.9	3.15	1480	13.6	136.5	1.48	543	15.1	56.0	0.61
90	97	6858	10.3	9.8	11.3	17.3	20.0	1.57	2.9	8.2	0.26	2.04	56.9	117	1.21	0.070	0.060	17.7	0.74	6628	18776	514	140	D	M	0.0514	352.2	3.63	5392	11.0	303.2	3.12	1692	13.8	163.8	1.69	711	15.2	76.7	0.79
95	102	6212	10.7	10.2	11.6	17.7	20.4	1.62	3.0	8.5	0.26	2.18	56.2	115	1.27	0.072	0.062	17.2	0.73	6438	18776	493	135	D	M	0.0576	357.9	3.51	5064	11.3	314.3	3.08	1861	14.0	189.1	1.85	875	15.4	98.5	0.96
100	107	5653	11.2	10.7	11.9	18.0	20.8	1.67	3.1	8.7	0.26	2.32	55.5	114	1.33	0.074	0.064	16.6	0.72	6260	18776	474	131	D	M	0.0641	362.6	3.39	4745	11.6	323.4	3.02	1986	14.3	211.8	1.98	1027	15.6	120.6	1.13
105	112	5167	11.6	11.1	12.1	18.4	21.2	1.72	3.2	8.9	0.26	2.46	54.8	112	1.39	0.076	0.066	16.1	0.71	6093	18776	456	127	D	M	0.0709	366.3	3.27	4442	12.0	330.9	2.95	2071	14.5	231.8	2.07	1158	15.8	142.0	1.27
110	117	4741	12.0	11.5	12.4	18.7	21.5	1.77	3.3	9.2	0.26	2.60	54.0	111	1.45	0.078	0.067	15.6	0.70	5935	18776	439	123	D	M	0.0779	369.3	3.15	4158	12.3	337.0	2.88	2123	14.7	249.3	2.13	1268	15.9	162.3	1.39
115	122	4367	12.5	11.9	12.6	18.9	21.9	1.82	3.4	9.4	0.27	2.74	53.3	110	1.51	0.080	0.069	15.1	0.69	5788	18776	423	120	D	M	0.0851	371.5	3.04	3893	12.7	342.0	2.80	2147	14.9	264.2	2.16	1357	16.1	181.1	1.48
120	127	4036	12.9	12.3	12.8	19.2	22.2	1.86	3.5	9.5	0.27	2.88	52.5	109	1.57	0.082	0.071	14.6	0.68	5648	18776	408	116	D	M	0.0924	373.1	2.94	3649	13.0	346.0	2.72	2148	15.2	276.9	2.18	1425	16.3	198.2	1.56
125	132	3743	13.3	12.7	13.0	19.4	22.4	1.91	3.6	9.7	0.27	3.02	51.8	108	1.63	0.084	0.073	14.2	0.66	5517	18776	395	113	D	M	0.1000	374.2	2.83	3423	13.3	349.1	2.64	2132	15.4	287.7	2.18	1474	16.5	213.7	1.62
130	137	3481	13.7	13.1	13.2	19.7	22.7	1.95	3.7	9.9	0.27	3.16	51.1	106	1.69	0.086	0.075	13.8	0.65	5394	18776	382	110	D	M	0.1077	374.8	2.73	3215	13.7	351.4	2.56	2100	15.7	296.7	2.16	1505	16.7	227.4	1.66
135	142	3248	14.0	13.4	13.4	19.9	22.9	2.00	3.8	10.0	0.27	3.31	50.3	105	1.75	0.088	0.076	13.4	0.64	5277	18776	370	107	D	M	0.1155	375.0	2.64	3027	14.0	353.2	2.49	2062	15.9	304.1	2.14	1526	17.0	239.5	1.69
140	147	3038	14.4	13.8	13.6	20.1	23.2	2.04	3.9	10.2	0.28	3.45	49.7	104	1.81	0.090	0.078	13.1	0.63	5168	18776	358	105	D	M	0.1234	374.9	2.55	2850	14.3	354.3	2.41	2014	16.1	310.2	2.11	1531	17.2	250.1	1.70
145	152	2848	14.8	14.2	13.7	20.3	23.4	2.08	4.0	10.3	0.28	3.59	49.0	103	1.87	0.092	0.080	12.7	0.62	5064	18776	348	102	D	M	0.1315	374.4	2.46	2681	14.7	355.0	2.33	1962	16.4	315.2	2.07	1528	17.4	259.3	1.70
150	157	2677	15.2	14.5	13.9	20.4	23.6	2.12	4.1	10.4	0.28	3.74	48.4	102	1.93	0.095	0.082	12.4	0.61	4966	18776	338	100	D	M	0.1396	373.7	2.38	2535	15.0	355.3	2.26	1907	16.6	319.2	2.03	1517	17.6	267.2	1.70
155	162	2522	15.5	14.9	14.0	20.6	23.8	2.16	4.2	10.5	0.28	3.88	47.7	101	1.99	0.097	0.084	12.1	0.60	4873	18776	328	98	D	M	0.1478	372.7	2.30	2400	15.3	355.3	2.19	1850	16.9	322.4	1.99	1499	17.8	274.1	1.69
160	167	2382	15.9	15.2	14.2	20.8	24.0	2.20	4.3	10.7	0.28	4.02	47.1	100	2.05	0.099	0.085	11.8	0.59	4785	18776	320	96	D	M	0.1560	371.5	2.22	2277	15.6	354.9	2.12	1793	17.1	324.8	1.94	1478	18.0	279.9	1.68
165	172	2253	16.2	15.5	14.3	20.9	24.1	2.24	4.3	10.7	0.29	4.17	46.5	99	2.11	0.101	0.087	11.6	0.58	4702	18776	311	94	D	M	0.1643	370.1	2.15	2163	15.9	354.3	2.06	1736	17.4	326.6	1.90	1453	18.3	284.9	1.66
170	177	2136	16.6	15.9	14.4	21.1	24.3	2.28	4.4	10.8	0.29	4.31	46.0	98	2.16	0.103	0.089	11.3	0.58	4623	18776	303	92	D	M	0.1726	368.6	2.08	2056	16.3	353.5	2.00	1679	17.6	327.9	1.85	1408	18.5	287.9	1.63
175	182	2028	16.9	16.2	14.6	21.2	24.5	2.32	4.5	10.9	0.29	4.45	45.4	98	2.22	0.105	0.091	11.1	0.57	4549	18776	296	90	D	M	0.1809	366.9	2.01	1961	16.6	352.5	1.94	1625	17.9	328.7	1.81	1381	18.8	291.5	1.60
180	187	1929	17.2	16.5	14.7	21.4	24.6	2.35	4.6	11.0	0.29	4.60	44.9	97	2.28	0.107	0.092	10.8	0.56	4478	18776	289	89	D	M	0.1893	365.2	1.95	1870	16.9	351.3	1.88	1562	18.2	328.6	1.76	1351	19.0	294.4	1.57

Table A73. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 16 m Initial Density = 800 stems/ha																																								
5	12	797	2.7	2.5	2.5	2.9	3.0	0.79	2.1	0.4	0.85	0.50	0.5	113	3.54	1.216	1.174	0.3	0.00	147	666	12	4	V	M	0.0008	0.6	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	791	5.1	4.8	4.0	4.7	4.9	1.01	3.2	1.0	0.75	0.83	1.6	97	3.56	0.759	0.729	0.7	0.02	275	666	24	7	A	M	0.0047	3.7	0.22	21	9.2	0.3	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	782	7.2	6.8	5.6	6.4	6.7	1.23	4.0	1.9	0.67	1.25	3.2	95	3.58	0.557	0.533	1.2	0.03	433	666	37	10	A	M	0.0129	10.1	0.47	268	9.5	5.3	0.24	14	13.1	0.6	0.03	2	14.4	0.1	0.00
20	27	770	9.1	8.6	7.0	8.1	8.4	1.43	4.6	2.9	0.60	1.71	5.0	94	3.60	0.447	0.427	1.7	0.05	606	666	49	13	A	M	0.0258	19.9	0.75	482	10.4	15.1	0.57	97	13.7	5.5	0.21	32	15.2	2.0	0.07
25	32	756	10.8	10.2	8.4	9.6	10.0	1.62	5.0	3.9	0.55	2.20	6.9	94	3.64	0.380	0.363	2.1	0.07	784	666	60	17	A	M	0.0431	32.6	1.03	591	11.5	27.9	0.88	224	14.4	16.5	0.52	112	15.8	9.0	0.28
30	37	740	12.3	11.7	9.7	11.0	11.5	1.80	5.4	4.9	0.51	2.69	8.8	93	3.68	0.336	0.321	2.5	0.09	960	666	70	20	A	M	0.0641	47.4	1.29	641	12.7	42.8	1.17	339	15.1	31.5	0.86	214	16.4	21.3	0.58
35	42	723	13.7	13.1	10.9	12.2	12.8	1.95	5.6	5.9	0.48	3.19	10.7	93	3.72	0.305	0.291	2.9	0.12	1130	666	80	23	A	M	0.0880	63.6	1.53	660	13.8	58.9	1.41	426	15.9	48.6	1.17	307	17.0	37.1	0.89
40	47	704	15.0	14.3	12.0	13.4	14.0	2.10	5.9	6.7	0.46	3.68	12.5	92	3.77	0.282	0.270	3.2	0.14	1290	666	87	26	A	M	0.1141	80.3	1.72	663	14.9	75.7	1.62	483	16.7	66.3	1.42	379	17.7	54.5	1.17
45	52	685	16.2	15.5	13.0	14.4	15.0	2.24	6.0	7.5	0.44	4.16	14.1	92	3.82	0.266	0.254	3.5	0.16	1439	666	94	29	A	M	0.1420	97.3	1.88	657	15.9	92.6	1.79	520	17.5	84.2	1.63	433	18.4	72.7	1.41
50	57	666	17.3	16.6	13.9	15.3	16.0	2.36	6.2	8.2	0.42	4.64	15.7	91	3.87	0.253	0.242	3.8	0.18	1577	666	100	31	B	M	0.1715	114.2	2.02	647	16.9	109.4	1.93	541	18.2	101.6	1.79	469	19.1	90.6	1.60
55	62	646	18.3	17.6	14.8	16.2	16.9	2.48	6.4	8.9	0.41	5.10	17.1	91	3.93	0.243	0.233	4.0	0.20	1703	666	105	33	B	M	0.2015	130.2	2.11	632	17.9	125.4	2.03	550	19.0	118.2	1.92	491	19.7	107.8	1.75
60	67	627	19.3	18.6	15.6	17.0	17.7	2.59	6.5	9.5	0.40	5.55	18.3	90	3.99	0.235	0.226	4.2	0.21	1817	666	110	35	B	M	0.2324	145.7	2.19	617	18.8	140.8	2.11	553	19.8	134.0	2.01	504	20.4	124.3	1.86
65	72	608	20.2	19.4	16.3	17.7	18.4	2.69	6.6	10.0	0.39	5.99	19.5	89	4.06	0.229	0.220	4.3	0.23	1920	666	113	36	B	M	0.2637	160.3	2.24	601	19.6	155.3	2.17	550	20.5	148.8	2.08	510	21.1	139.7	1.95
70	77	590	21.1	20.3	17.0	18.4	19.1	2.79	6.7	10.5	0.39	6.42	20.5	88	4.12	0.224	0.216	4.5	0.24	2014	666	116	38	B	M	0.2949	174.0	2.27	585	20.4	169.0	2.20	544	21.2	162.6	2.12	511	21.7	154.2	2.01
75	82	573	21.9	21.1	17.6	19.0	19.7	2.88	6.8	10.9	0.38	6.84	21.5	88	4.18	0.220	0.213	4.6	0.26	2098	666	119	39	B	M	0.3262	186.9	2.29	569	21.2	181.8	2.23	536	21.9	175.6	2.15	509	22.3	167.7	2.05
80	87	556	22.6	21.8	18.2	19.5	20.2	2.96	6.9	11.3	0.38	7.25	22.3	87	4.24	0.217	0.210	4.7	0.27	2175	666	121	40	B	M	0.3570	198.5	2.29	553	21.9	193.4	2.23	526	22.5	187.3	2.16	503	23.0	179.9	2.08
85	92	540	23.3	22.6	18.7	20.0	20.7	3.04	7.0	11.7	0.37	7.64	23.1	86	4.30	0.215	0.208	4.8	0.28	2244	666	123	41	B	M	0.3878	209.4	2.28	538	22.6	204.2	2.23	516	23.2	198.2	2.16	497	23.5	191.3	2.09
90	97	525	24.0	23.2	19.2	20.5	21.2	3.12	7.1	12.0	0.37	8.03	23.8	86	4.36	0.213	0.206	4.9	0.29	2307	666	124	42	B	M	0.4179	219.4	2.27	523	23.3	214.2	2.22	505	23.8	208.2	2.15	489	24.1	201.7	2.09
95	102	511	24.7	23.9	19.7	20.9	21.6	3.20	7.2	12.3	0.37	8.41	24.4	85	4.42	0.211	0.205	4.9	0.30	2364	666	125	43	B	M	0.4476	228.7	2.25	510	23.9	223.5	2.20	494	24.4	217.5	2.14	481	24.7	211.4	2.08
100	107	497	25.3	24.5	20.1	21.3	22.0	3.26	7.3	12.6	0.36	8.77	25.0	84	4.49	0.210	0.204	5.0	0.31	2416	666	126	44	B	M	0.4767	236.9	2.22	496	24.5	231.6	2.17	483	24.9	225.7	2.12	471	25.2	219.8	2.06
105	112	484	25.9	25.1	20.5	21.7	22.4	3.33	7.4	12.8	0.36	9.13	25.5	83	4.55	0.209	0.203	5.0	0.32	2464	666	127	44	B	M	0.5052	244.5	2.19	483	25.1	239.1	2.14	472	25.5	233.2	2.09	462	25.7	227.7	2.04
110	117	472	26.5	25.7	20.9	22.1	22.7	3.40	7.4	13.0	0.36	9.47	26.0	83	4.60	0.209	0.202	5.0	0.33	2508	666	127	45	B	M	0.5328	251.5	2.16	471	25.7	246.1	2.11	462	26.0	240.2	2.06	453	26.3	234.9	2.01
115	122	461	27.0	26.2	21.2	22.4	23.1	3.46	7.5	13.2	0.36	9.81	26.4	82	4.66	0.208	0.202	5.1	0.34	2549	666	128	45	B	M	0.5599	258.1	2.12	461	26.2	252.7	2.08	453	26.5	246.8	2.03	445	26.7	241.8	1.99
120	127	450	27.5	26.7	21.6	22.7	23.4	3.51	7.6	13.3	0.36	10.13	26.8	81	4.71	0.208	0.202	5.1	0.34	2587	666	128	46	B	M	0.5860	263.7	2.08	450	26.7	258.3	2.04	443	27.0	252.4	1.99	436	27.2	247.6	1.95
125	132	441	28.0	27.2	21.9	23.0	23.6	3.57	7.6	13.5	0.36	10.45	27.2	80	4.76	0.207	0.201	5.1	0.35	2622	666	129	46	B	M	0.6116	269.7	2.05	441	27.2	264.3	2.01	435	27.5	258.4	1.96	429	27.7	253.8	1.93
130	137	431	28.5	27.7	22.2	23.3	23.9	3.62	7.7	13.6	0.36	10.76	27.5	80	4.82	0.207	0.201	5.2	0.36	2656	666	129	46	B	M	0.6364	274.3	2.01	431	27.7	268.8	1.97	426	27.9	262.9	1.92	420	28.1	258.4	1.89
135	142	422	29.0	28.2	22.4	23.5	24.2	3.67	7.8	13.7	0.36	11.06	27.8	79	4.87	0.207	0.201	5.2	0.36	2687	666	129	47	B	M	0.6604	278.7	1.97	422	28.2	273.2	1.93	417	28.4	267.2	1.89	413	28.5	263.0	1.86
140	147	414	29.4	28.6	22.7	23.8	24.4	3.72	7.8	13.8	0.36	11.36	28.1	78	4.91	0.207	0.201	5.2	0.37	2717	666	129	47	B	M	0.6836	283.0	1.93	414	28.6	277.5	1.89	410	28.8	271.6	1.85	406	28.9	267.4	1.82
145	152	407	29.8	29.0	22.9	24.0	24.6	3.77	7.9	13.9	0.36	11.64	28.5	78	4.96	0.207	0.201	5.2	0.38	2746	666	130	47	B	M	0.7061	287.4	1.89	407	29.0	281.9	1.86	403	29.2	275.9	1.82	400	29.3	271.9	1.79
150	157	399	30.3	29.4	23.2	24.2	24.8	3.82	7.9	14.0	0.36	11.92	28.7	77	5.01	0.207	0.202	5.2	0.38	2773	666	130	48	B	M	0.7278	290.4	1.85	399	29.4	284.9	1.82	396	29.6	278.9	1.78	392	29.7	275.0	1.76
155	162	393	30.7	29.8	23.4	24.4	25.0	3.86	7.9	14.1	0.36	12.19	29.0	76	5.04	0.207	0.202	5.2	0.39	2800	666	130	48	B	M	0.7489	294.3	1.82	393	29.8	288.7	1.79	390	30.0	282.7	1.75	387	30.1	278.9	1.73
160	167	386	31.0	30.2	23.6	24.6	25.2	3.90	8.0	14.1	0.36	12.46	29.2	76	5.09	0.207	0.202	5.2	0.39	2825	666	130	48	B	M	0.7692	296.9	1.78	386	30.2	291.3	1.75	384	30.3	285.3	1.71	381	30.5	281.6	1.69
165	172	380	31.4	30.6	23.8	24.8	25.4	3.94	8.0	14.2	0.36	12.72	29.4	75	5.13	0.207	0.202	5.3	0.39	2850	666	130	48	B	M	0.7887	299.7	1.75	380	30.6	294.1	1.71	378	30.7	288.0	1.68	375	30.8	284.5	1.66
170	177	375	31.8	30.9	24.0	25.0	25.5	3.98	8.1	14.2	0.36	12.97	29.7	74	5.16	0.207	0.202	5.3	0.40	2874	666	130	49	B	M	0.8075	302.8	1.71	375	30.9	297.2	1.68	373	31.1	291.1	1.65	371	31.1	287.7	1.63
175	182	369	32.1	31.3	24.2	25.1	25.7	4.02	8.1	14.2	0.36	13.21	29.9	74	5.21	0.207	0.203	5.3	0.40	2897	666	130	49	B	M	0.8255	304.6	1.68	369	31.3	299.0	1.65	367	31.4	292.9	1.61	365	31.5	289.6	1.59
180	187	364	32.5	31.6	24.3	25.3	25.9	4.06	8.1	14.3	0.36	13.46	30.1	73	5.24	0.207	0.203	5.3	0.41	2920	666	130	49	B	M	0.8431	306.9	1.64	364	31.6	301.3	1.61	362	31.7	295.1	1.58	360	31.8	291.8	1.56
SI = 16 m Initial Density = 1000 stems/ha																																								
5	12	996	2.6	2.4	2.5	2.9	3.0	0.78	2.1	0.4	0.84	0.48	0.5	118	3.17	1.089	1.051	0.3	0.01	178	785	14	5	V	M	0.0007	0.7	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	985	4.9	4.5	4.0	4.7	4.9	0.98	3.1	1.0	0.74	0.79	1.8	100	3.19	0.682	0.653	0.8	0.02	323	785	28	8	A	M	0.0041	4.0	0.24	15	9.1	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	970	6.9	6.5	5.5	6.4	6.7	1.19	3.8	1.9	0.65	1.17	3.6	98	3.21	0.501	0.479	1.4	0.04	500	785	43	11	A	M	0.0114	11.1	0.51	279	9.3	5.2	0.24	9	12.9	0.4	0.02	0	0.0	0.0	0.00
20	27	951	8.7	8.2	7.0	8.0	8.4	1.39	4.4	3.0	0.59	1.59	5.6	97	3.24	0.403	0.385	1.9	0.06	693	785	57	15	A	M	0.0230	21.9	0.82	551	10.1	15.9	0.60	85	13.5	4.7	0.18	24	15.0	1.4	0.05
25	32	927	10.3	9.7	8.3	9.5	10.0	1.57	4.8	4.0	0.54	2.04	7.7	96	3.28	0.344	0.328	2.4	0.08	889	785	69	19	A	M	0.0386	35.8	1.13	695	11.1	29.9	0.94	224	14.1	15.8	0.50	101	15.5	7.8	0.25
30	37	901	11.8	11.2	9.6	10.9	11.5	1.73	5.1	5.0	0.50	2.51	9.8	96	3.33	0.305	0.290	2.9	0.11	1081	785	81	23	A	M	0.0575	51.8	1.41	761	12.2	46.2	1.26	363	14.8	32.0	0.87	212	16.1	20.1	0.55
35	42	873	13.1	12.5	10.8	12.2	12.8	1.89	5.4	5.9	0.47	2.97	11.8	95	3.38	0.278	0.265	3.3	0.13	1264	785	91	26	A	M	0.0794	69.3	1.66	785	13.3	63.7	1.53	470	15.5	50.5	1.21	321	16.7	36.7	0.88
40	47	844	14.4	13.7	11.9	13.3	14.0	2.03	5.6	6.8	0.44	3.43	13.7	95	3.44	0.258	0.247	3.6	0.15	1434	785	99	29	A	M	0.1036	87.4	1.87	786	14.3	81.8	1.75	544	16.3	70.0	1.50	411	17.3	55.6	1.19
45	52	815	15.6	14.9	12.9	14.4	15.0	2.16	5.7	7.6	0.43	3.90	15.5	94	3.50	0.244	0.233	3.9	0.18	1590	785	106	32	B	M	0.1294	105.5	2.04	776	15.3	100.1	1.94	591	17.0	89.5	1.73	478	18.0	75.4	1.46
50	57	785	16.7	16.0	13.8	15.3	16.0	2.29	5.9	8.3	0.41	4.35	17.1	93	3.57	0.233	0.223	4.2	0.20	1731	785	112	34	B	M	0.1569	123.2	2.17	758	16.3	117.7	2.08	616	17.8	108.2	1.91	522	18.6	94.7	1.67
55	62	756	17.7	17.0	14.7	16.2	16.9	2.40	6.1	8.9	0.40	4.80	18.5	92	3.64	0.225	0.216	4.4	0.22	1858	785	117	36	B	M	0.1854	140.2	2.27	737	17.2	134.7	2.18	628	18.5	126.0	2.04	551	19.3	113.4	1.84
60	67	728	18.6	17.9	15.5	16.9	17.7	2.51	6.2	9.5	0.39	5.24	19.9	92	3.71	0.219	0.210	4.6	0.23	1972	785	121	38	B	M	0.2148	156.4	2.35	714	18.1	150.8	2.26	630	19.2	142.8	2.14	566	19.9	131.0	1.96
65	72	700	19.5	18.8	16.2	17.6	18.4	2.62	6.3	10.1	0.38	5.67	21.0	91	3.78	0.214	0.205	4.7	0.25	2073	785	125	40	B	M	0.2446	171.2	2.39	690	19.0	165.7	2.31	624	19.9	158.1	2.21	572	20.6	147.2	2.05
70	77	674	20.4	19.7	16.9	18.3	19.1	2.71	6.5	10.5	0.38	6.09	22.0	90	3.85	0.210	0.202	4.9	0.26	2163	785	127	41	B	M	0.2748	185.2	2.42	667	19.8	179.6	2.34	614	20.6	172.4	2.25	572	21.2	162.4	2.12
75	82	650	21.2	20.5	17.5	18.9	19.7	2.81	6.6	11.0	0.37	6.50	23.0	89	3.92	0.207	0.200	5.0	0.28	2243	785	130	42	B	M	0.3051	198.3	2.43	645	20.6	192.7	2.36	602	21.3	185.7	2.27	568	21.8	176.4	2.16
80	87	626	22.0	21.2	18.0	19.5	20.2	2.89	6.7	11.4	0.37	6.91	23.8	88	4.00	0.205	0.198	5.1	0.29	2314	785	131	43	B	M	0.3351	209.8	2.42	622	21.3	204.2	2.36	588	22.0	197.5	2.28	559	22.4	188.8	2.18
85	92	604	22.7	21.9	18.6	20.0	20.7	2.98	6.8	11.7	0.36	7.30	24.5	88	4.07	0.204	0.196	5.1	0.30	2378	785	132	44	B	M	0.3652	220.6	2.41	601	22.0	215.0	2.35	573	22.6	208.4	2.27	549	23.0	200.3	2.18
90	97	584	23.4	22.6	19.1	20.4	21.2	3.05	6.9	12.1	0.36	7.69	25.1	87	4.14	0.202	0.195	5.2	0.31	2435	785	133	45	B	M	0.3949	230.6	2.39	582	22.7	225.0	2.33	559	23.2	218.5	2.26	539	23.6	211.0	2.18
95	102	564	24.1	23.3	19.5	20.9	21.6	3.13	7.0	12.3	0.36	8.06	25.7	86	4.21	0.202	0.195	5.2	0.32	2486	785	134	45	B	M	0.4241	239.2	2.35	562	23.4	233.6	2.30	543	23.8	227.2	2.23	526	24.2	220.1	2.16
100	107	546	24.7	23.9	20.0	21.3	22.0	3.20	7.1	12.6	0.36	8.43	26.2	85	4.28	0.201	0.194	5.3	0.33	2532	785	134	46	B	M	0.4529	247.3	2.32	545	24.0	241.7	2.27	529	24.4	235.4	2.21	514	24.7	228.7	2.14
105	112	530	25.3	24.5	20.4	21.7	22.4	3.27	7.2	12.8	0.35	8.79	26.7	84	4.34	0.200	0.194	5.3	0.34	2574	785	135	47	B	M	0.4813	255.1	2.28	529	24.6	249.4	2.23	516	24.9	243.2	2.18	503	25.2	236.9	2.12
110	117	514	25.9	25.1	20.7	22.0	22.7	3.33	7.2	13.0	0.35	9.13	27.1	84	4.41	0.200	0.194	5.3	0.34	2612	785	135	47	B	M	0.5089	261.6	2.24	513	25.2	255.9	2.19	502	25.5	249.7	2.14	491	25.8	243.8	2.09
115	122	499	26.5	25.7	21.1	22.4	23.1	3.40	7.3	13.2	0.35	9.47	27.5	83	4.48	0.200	0.194	5.3	0.35	2647	785	135	47	B	M	0.5359	267.4	2.20	498	25.7	261.8	2.15	489	26.0	255.6	2.10	480	26.2	250.0	2.05
120	127	486	27.0	26.2	21.4	22.7	23.4	3.46	7.4	13.4	0.35	9.81	27.8	82	4.54	0.200	0.194	5.4	0.36	2680	785	135	48	B	M	0.5623	273.3	2.16	486	26.2	267.6	2.11	477	26.5	261.4	2.06	469	26.7	256.1	2.02
125	132	473	27.5	26.7	21.7	22.9	23.6	3.51	7.5	13.5	0.35	10.13	28.1	81	4.60	0.200	0.194	5.4	0.36	2710	785	135	48	B	M	0.5879	278.1	2.11	473	26.7	272.4	2.07	466	27.0	266.3	2.02	458	27.2	261.1	1.98
130	137	462	28.0	27.2	22.0	23.2	23.9	3.57	7.5	13.7	0.35	10.44	28.5	81	4.65	0.200	0.195	5.4	0.37	2739	785	135	48	B	M	0.6130	283.2	2.07	462	27.2	277.5	2.03	456	27.4	271.3	1.99	449	27.7	266.4	1.95
135	142	451	28.5	27.7	22.3	23.5	24.2	3.62	7.6	13.8	0.35	10.75	28.7	80	4.71	0.201	0.195	5.4	0.37	2765	785	135	48	B	M	0.6370	287.3	2.03	451	27.7	281.6	1.99	445	27.9	275.4	1.94	440	28.1	270.8	1.91
140	147	440	28.9	28.1	22.5	23.7	24.4	3.67	7.7	13.9	0.35	11.05	29.0	79	4.77	0.201	0.195	5.4	0.38	2791	785	134	49	B	M	0.6605	290.6	1.98	440	28.1	284.9	1.94	435	28.3	278.7	1.90	430	28.5	274.3	1.87
145	152	431	29.4	28.6	22.8	23.9	24.6	3.72	7.7	14.0	0.35	11.34	29.2	78	4.82	0.201	0.196	5.4	0.38	2815	785	134	49	B	M	0.6833	294.5	1.94	431	28.6	288.8	1.90	427	28.7	282.6	1.86	422	28.9	278.3	1.83
150	157	422	29.8	29.0	23.0	24.2	24.8	3.77	7.8	14.0	0.35	11.62	29.5	78	4.87	0.201	0.196	5.4	0.39	2839	785	134	49	B	M	0.7052	297.6	1.90	422	29.0	291.9	1.86	418	29.2	285.7	1.82	414	29.3	281.5	1.80
155	162	414	30.2	29.4	23.2	24.4	25.0	3.81	7.8	14.1	0.35	11.90	29.7	77	4.91	0.202	0.196	5.4	0.39	2861	785	134	49	B	M	0.7266	300.8	1.86	414	29.4	295.1	1.83	411	29.5	288.9	1.79	407	29.7	284.8	1.76
160	167	406	30.6	29.8	23.4	24.6	25.2	3.86	7.9	14.1	0.35	12.17	29.9	76	4.96	0.202	0.197	5.4	0.40	2883	785	134	49	B	M	0.7470	303.3	1.82	406	29.8	297.6	1.79	403	29.9	291.4	1.75	400	30.1	287.5	1.72
165	172	399	31.0	30.2	23.6	24.7	25.4	3.90	7.9	14.2	0.35	12.43	30.1	76	5.01	0.202	0.197	5.4	0.40	2904	785	134	50	B	M	0.7669	306.0	1.78	399	30.2	300.3	1.75	396	30.3	294.0	1.71	393	30.5	290.3	1.69
170	177	392	31.4	30.5	23.8	24.9	25.5	3.94	8.0	14.2	0.36	12.69	30.3	75	5.05	0.203	0.198	5.4	0.41	2925	785	134	50	B	M	0.7862	308.2	1.74	392	30.5	302.4	1.71	390	30.6	296.2	1.68	387	30.8	292.5	1.66
175	182	386	31.7	30.9	24.0	25.1	25.7	3.98	8.0	14.3	0.36	12.94	30.5	74	5.09	0.203	0.198	5.4	0.41	2946	785	134	50	B	M	0.8047	310.6	1.71	386	30.9	304.9	1.68	384	31.0	298.6	1.64	381	31.1	295.0	1.62
180	187	380	32.1	31.2	24.2	25.2	25.9	4.02	8.0	14.3	0.36	13.18	30.7	74	5.13	0.203	0.198	5.4	0.41	2966	785	134	50	C	M	0.8226	312.6	1.67	380	31.2	306.8	1.64	378	31.4	300.5	1.61	376	31.5	297.1	1.59

Table A74. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 16 m Initial Density = 1600 stems/ha																																								
5	12	1589	2.3	2.1	2.4	2.9	3.0	0.76	1.9	0.4	0.82	0.45	0.6	129	2.51	0.865	0.832	0.4	0.01	267	1096	19	7	A	M	0.0005	0.8	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	1562	4.3	4.1	3.9	4.7	4.9	0.93	2.8	1.1	0.71	0.70	2.3	108	2.53	0.543	0.519	1.1	0.02	456	1096	39	11	A	M	0.0031	4.9	0.29	5	8.9	0.1	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	1523	6.2	5.8	5.4	6.4	6.7	1.12	3.5	2.0	0.62	1.02	4.5	104	2.56	0.402	0.382	1.8	0.05	680	1096	58	16	A	M	0.0089	13.5	0.62	275	9.0	4.5	0.21	3	12.5	0.1	0.00	0	0.0	0.0	0.00
20	27	1474	7.8	7.4	6.8	8.0	8.4	1.29	3.9	3.1	0.55	1.38	7.0	102	2.60	0.326	0.309	2.5	0.07	919	1096	77	20	A	M	0.0180	26.5	0.99	694	9.6	16.8	0.63	53	13.2	2.7	0.10	9	14.8	0.5	0.02
25	32	1416	9.3	8.8	8.1	9.5	10.0	1.46	4.3	4.1	0.50	1.76	9.6	102	2.66	0.280	0.265	3.2	0.11	1157	1096	93	25	A	M	0.0304	43.1	1.36	950	10.4	33.8	1.07	200	13.7	13.0	0.41	67	15.2	4.8	0.15
30	37	1354	10.7	10.1	9.4	10.9	11.5	1.61	4.6	5.1	0.47	2.16	12.1	101	2.72	0.250	0.237	3.7	0.14	1383	1096	107	29	A	M	0.0459	62.1	1.69	1070	11.4	53.3	1.45	386	14.2	30.7	0.84	185	15.6	16.0	0.44
35	42	1289	12.0	11.4	10.6	12.1	12.8	1.76	4.8	6.0	0.44	2.57	14.5	100	2.79	0.230	0.218	4.2	0.16	1591	1096	118	33	B	M	0.0638	82.3	1.97	1111	12.3	74.0	1.78	550	14.8	52.6	1.26	327	16.1	33.7	0.81
40	47	1223	13.2	12.6	11.6	13.2	14.0	1.89	5.0	6.9	0.42	2.98	16.7	99	2.86	0.216	0.205	4.6	0.19	1779	1096	127	36	B	M	0.0842	103.0	2.21	1108	13.3	95.0	2.04	670	15.5	75.9	1.63	457	16.6	55.1	1.18
45	52	1158	14.3	13.7	12.6	14.3	15.0	2.02	5.2	7.6	0.40	3.40	18.6	98	2.94	0.206	0.195	4.9	0.22	1944	1096	135	39	B	M	0.1065	123.3	2.39	1082	14.2	115.6	2.24	746	16.1	98.9	1.91	559	17.2	78.0	1.51
50	57	1096	15.4	14.7	13.5	15.2	16.0	2.14	5.3	8.3	0.39	3.82	20.3	97	3.02	0.199	0.189	5.2	0.24	2089	1096	141	42	B	M	0.1304	142.9	2.52	1044	15.2	135.5	2.39	789	16.8	120.8	2.13	631	17.8	100.8	1.78
55	62	1036	16.4	15.7	14.4	16.1	16.9	2.26	5.5	9.0	0.38	4.23	21.8	96	3.11	0.193	0.184	5.4	0.26	2214	1096	145	44	B	M	0.1556	161.2	2.61	1000	16.1	154.0	2.50	806	17.5	141.1	2.29	676	18.4	122.5	1.99
60	67	980	17.3	16.6	15.1	16.8	17.7	2.37	5.7	9.6	0.37	4.64	23.1	95	3.19	0.190	0.181	5.6	0.28	2321	1096	148	46	B	M	0.1819	178.3	2.67	955	16.9	171.2	2.57	806	18.2	159.7	2.40	700	19.0	142.6	2.14
65	72	928	18.2	17.5	15.9	17.5	18.4	2.47	5.8	10.1	0.36	5.05	24.2	94	3.28	0.187	0.178	5.7	0.29	2413	1096	150	47	B	M	0.2091	194.0	2.71	910	17.8	187.0	2.61	795	18.9	176.6	2.46	709	19.6	161.0	2.25
70	77	880	19.1	18.4	16.5	18.2	19.1	2.57	5.9	10.6	0.36	5.46	25.2	93	3.37	0.185	0.177	5.8	0.31	2491	1096	152	48	B	M	0.2368	208.4	2.72	867	18.6	201.5	2.63	777	19.6	191.9	2.50	708	20.2	177.7	2.32
75	82	835	19.9	19.2	17.1	18.8	19.7	2.66	6.1	11.0	0.35	5.86	26.0	92	3.46	0.184	0.176	5.8	0.32	2558	1096	153	49	B	M	0.2650	221.3	2.71	825	19.4	214.5	2.63	755	20.2	205.5	2.52	699	20.8	192.6	2.36
80	87	794	20.7	20.0	17.7	19.3	20.2	2.75	6.2	11.4	0.35	6.25	26.8	91	3.55	0.183	0.176	5.9	0.33	2615	1096	153	50	B	M	0.2935	233.0	2.69	787	20.1	226.3	2.61	731	20.9	217.8	2.51	685	21.4	206.0	2.38
85	92	756	21.5	20.7	18.2	19.9	20.7	2.84	6.3	11.8	0.35	6.64	27.4	90	3.64	0.183	0.176	5.9	0.34	2664	1096	153	50	C	M	0.3220	243.4	2.66	751	20.8	236.8	2.58	706	21.5	228.7	2.49	668	22.0	217.8	2.38
90	97	721	22.2	21.4	18.7	20.3	21.2	2.92	6.4	12.1	0.34	7.02	27.9	89	3.72	0.183	0.176	5.9	0.35	2706	1096	153	51	C	M	0.3503	252.6	2.61	717	21.5	246.1	2.55	681	22.1	238.3	2.47	650	22.6	228.4	2.36
95	102	689	22.9	22.1	19.2	20.8	21.6	3.00	6.6	12.4	0.34	7.39	28.3	89	3.81	0.183	0.176	5.9	0.35	2743	1096	152	51	C	M	0.3787	260.9	2.57	686	22.2	254.4	2.50	656	22.7	246.9	2.43	630	23.1	237.7	2.34
100	107	660	23.5	22.8	19.6	21.2	22.0	3.07	6.7	12.6	0.34	7.76	28.7	88	3.89	0.184	0.177	5.9	0.36	2775	1096	152	51	C	M	0.4067	268.4	2.52	658	22.8	262.0	2.46	633	23.3	254.6	2.39	612	23.7	246.1	2.31
105	112	634	24.2	23.4	20.0	21.5	22.4	3.14	6.8	12.8	0.34	8.12	29.1	87	3.97	0.184	0.177	5.9	0.37	2803	1096	151	51	C	M	0.4344	275.4	2.47	632	23.5	269.0	2.41	612	23.9	261.8	2.34	594	24.2	253.9	2.27
110	117	609	24.8	24.0	20.4	21.9	22.7	3.21	6.9	13.0	0.34	8.47	29.4	86	4.05	0.185	0.178	5.9	0.37	2828	1096	150	52	C	M	0.4616	281.1	2.41	608	24.0	274.7	2.35	591	24.4	267.7	2.29	575	24.8	260.3	2.23
115	122	587	25.4	24.6	20.7	22.2	23.1	3.27	7.0	13.2	0.34	8.81	29.7	85	4.13	0.186	0.179	5.9	0.38	2850	1096	150	52	C	M	0.4882	286.6	2.36	586	24.6	280.3	2.30	572	25.0	273.4	2.25	558	25.3	266.4	2.19
120	127	566	25.9	25.1	21.1	22.5	23.4	3.34	7.1	13.4	0.34	9.15	29.9	84	4.20	0.187	0.180	5.9	0.38	2871	1096	149	52	C	M	0.5143	291.1	2.30	565	25.2	284.9	2.25	553	25.5	278.0	2.19	542	25.8	271.5	2.14
125	132	547	26.5	25.7	21.4	22.8	23.6	3.40	7.1	13.5	0.34	9.47	30.1	83	4.28	0.187	0.181	5.8	0.39	2890	1096	148	52	C	M	0.5400	295.4	2.24	546	25.7	289.1	2.20	536	26.0	282.3	2.14	526	26.2	276.2	2.10
130	137	530	27.0	26.2	21.7	23.1	23.9	3.45	7.2	13.7	0.34	9.79	30.3	82	4.34	0.188	0.182	5.8	0.39	2908	1096	147	52	C	M	0.5649	299.4	2.19	530	26.2	293.2	2.15	521	26.5	286.5	2.10	512	26.7	280.6	2.05
135	142	514	27.5	26.7	21.9	23.3	24.2	3.51	7.3	13.8	0.34	10.10	30.5	82	4.41	0.189	0.183	5.8	0.40	2924	1096	146	52	C	M	0.5893	302.9	2.14	514	26.7	296.7	2.09	506	26.9	290.0	2.05	498	27.2	284.4	2.01
140	147	499	28.0	27.2	22.2	23.6	24.4	3.56	7.4	13.9	0.34	10.41	30.6	81	4.48	0.190	0.184	5.8	0.40	2940	1096	145	52	C	M	0.6128	305.8	2.08	499	27.2	299.7	2.04	492	27.4	293.0	2.00	485	27.6	287.7	1.96
145	152	486	28.4	27.6	22.4	23.8	24.6	3.61	7.4	14.0	0.34	10.71	30.8	80	4.54	0.190	0.184	5.8	0.40	2955	1096	145	52	C	M	0.6358	309.0	2.04	486	27.6	302.9	2.00	480	27.8	296.3	1.95	474	28.0	291.2	1.92
150	157	473	28.9	28.1	22.7	24.0	24.8	3.66	7.5	14.0	0.34	11.00	31.0	79	4.60	0.191	0.185	5.8	0.41	2970	1096	144	52	C	M	0.6581	311.3	1.99	473	28.1	305.2	1.95	468	28.3	298.6	1.91	462	28.5	293.8	1.88
155	162	461	29.3	28.5	22.9	24.2	25.0	3.71	7.6	14.1	0.35	11.28	31.1	79	4.66	0.192	0.186	5.7	0.41	2985	1096	143	52	C	M	0.6798	313.4	1.94	461	28.5	307.3	1.90	456	28.7	300.7	1.86	452	28.8	296.1	1.83
160	167	450	29.7	28.9	23.1	24.4	25.2	3.76	7.6	14.2	0.35	11.56	31.2	78	4.71	0.193	0.187	5.7	0.41	2999	1096	143	52	C	M	0.7007	315.3	1.89	450	28.9	309.3	1.86	446	29.1	302.7	1.82	442	29.2	298.3	1.79
165	172	440	30.1	29.3	23.3	24.6	25.4	3.80	7.7	14.2	0.35	11.83	31.3	77	4.77	0.194	0.188	5.7	0.41	3014	1096	142	52	C	M	0.7209	317.2	1.85	440	29.3	311.2	1.81	436	29.5	304.6	1.77	433	29.6	300.4	1.75
170	177	431	30.5	29.7	23.5	24.8	25.5	3.84	7.7	14.2	0.35	12.09	31.5	76	4.82	0.194	0.189	5.7	0.42	3028	1096	142	52	C	M	0.7406	319.2	1.81	431	29.7	313.2	1.77	428	29.8	306.6	1.74	424	30.0	302.5	1.71
175	182	422	30.9	30.1	23.7	24.9	25.7	3.89	7.8	14.3	0.35	12.35	31.6	76	4.87	0.195	0.189	5.7	0.42	3042	1096	141	52	C	M	0.7597	320.6	1.76	422	30.1	314.5	1.73	419	30.2	308.0	1.70	416	30.3	304.0	1.67
180	187	414	31.2	30.4	23.8	25.1	25.9	3.93	7.8	14.3	0.35	12.60	31.7	75	4.91	0.196	0.190	5.7	0.42	3056	1096	141	52	C	M	0.7780	322.1	1.73	414	30.4	316.0	1.69	411	30.6	309.5	1.66	409	30.7	305.7	1.64
SI = 16 m Initial Density = 2000 stems/ha																																								
5	12	1983	2.1	2.0	2.4	2.9	3.0	0.75	1.9	0.4	0.81	0.44	0.7	135	2.25	0.775	0.745	0.5	0.01	323	1278	23	9	A	M	0.0005	0.9	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	1943	4.1	3.8	3.9	4.6	4.9	0.91	2.7	1.1	0.69	0.67	2.6	111	2.27	0.488	0.465	1.3	0.03	537	1278	45	13	A	M	0.0027	5.3	0.32	3	8.7	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	1885	5.8	5.5	5.3	6.4	6.7	1.09	3.3	2.1	0.60	0.96	5.1	107	2.30	0.362	0.343	2.1	0.05	788	1278	68	18	A	M	0.0079	14.8	0.68	257	8.8	3.9	0.18	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	1811	7.4	7.0	6.7	8.0	8.4	1.25	3.7	3.1	0.54	1.29	7.8	105	2.35	0.294	0.279	2.9	0.08	1052	1278	88	23	A	M	0.0160	28.9	1.08	753	9.4	16.9	0.63	38	13.1	1.9	0.07	5	14.6	0.3	0.01
25	32	1727	8.9	8.4	8.1	9.5	10.0	1.41	4.1	4.1	0.49	1.65	10.7	104	2.41	0.254	0.240	3.6	0.12	1310	1278	106	28	A	M	0.0271	46.8	1.48	1084	10.1	35.3	1.11	177	13.5	11.1	0.35	50	15.0	3.5	0.11
30	37	1637	10.2	9.7	9.3	10.8	11.5	1.56	4.3	5.1	0.45	2.02	13.4	103	2.47	0.228	0.215	4.2	0.15	1552	1278	121	33	B	M	0.0411	67.2	1.83	1244	11.0	56.4	1.54	380	14.0	28.9	0.79	162	15.4	13.5	0.37
35	42	1544	11.5	10.9	10.4	12.1	12.8	1.70	4.5	6.0	0.42	2.40	15.9	102	2.54	0.211	0.199	4.7	0.18	1772	1278	133	37	B	M	0.0575	88.8	2.13	1298	11.9	78.8	1.89	574	14.5	52.2	1.25	314	15.9	30.9	0.74
40	47	1452	12.6	12.0	11.5	13.2	14.0	1.83	4.7	6.9	0.40	2.79	18.2	101	2.62	0.199	0.188	5.1	0.21	1965	1278	143	41	B	M	0.0762	110.7	2.37	1294	12.8	101.3	2.17	722	15.1	77.3	1.66	464	16.3	53.2	1.14
45	52	1363	13.7	13.1	12.5	14.2	15.0	1.96	4.9	7.6	0.39	3.19	20.2	100	2.71	0.190	0.180	5.4	0.24	2134	1278	150	43	B	M	0.0969	132.1	2.56	1259	13.7	123.1	2.38	819	15.8	102.3	1.98	587	16.9	77.6	1.50
50	57	1278	14.8	14.2	13.4	15.2	16.0	2.08	5.1	8.3	0.37	3.59	21.9	99	2.80	0.185	0.175	5.7	0.26	2277	1278	156	46	B	M	0.1192	152.4	2.69	1208	14.6	143.8	2.54	874	16.4	125.8	2.22	676	17.4	102.1	1.80
55	62	1199	15.8	15.1	14.2	16.0	16.9	2.19	5.3	9.0	0.36	3.99	23.5	98	2.89	0.180	0.171	5.9	0.28	2399	1278	160	48	B	M	0.1430	171.5	2.78	1151	15.5	163.2	2.65	897	17.1	147.6	2.39	734	18.0	125.5	2.03
60	67	1125	16.7	16.1	15.0	16.8	17.7	2.30	5.4	9.6	0.36	4.39	24.8	97	2.98	0.178	0.169	6.0	0.30	2501	1278	162	49	B	M	0.1679	188.9	2.83	1091	16.4	180.9	2.71	898	17.7	167.2	2.51	765	18.6	146.9	2.20
65	72	1057	17.6	17.0	15.7	17.5	18.4	2.40	5.6	10.1	0.35	4.79	25.8	96	3.08	0.176	0.167	6.2	0.31	2586	1278	164	51	C	M	0.1938	204.8	2.86	1033	17.2	197.1	2.75	885	18.4	184.8	2.58	777	19.2	166.4	2.32
70	77	995	18.5	17.8	16.3	18.1	19.1	2.50	5.7	10.6	0.35	5.18	26.8	95	3.17	0.175	0.166	6.2	0.33	2657	1278	165	52	C	M	0.2204	219.3	2.86	978	18.0	211.7	2.76	863	19.1	200.6	2.62	776	19.8	183.9	2.40
75	82	938	19.3	18.6	17.0	18.7	19.7	2.60	5.9	11.0	0.34	5.57	27.6	94	3.27	0.174	0.166	6.3	0.34	2716	1278	165	52	C	M	0.2475	232.2	2.84	925	18.8	224.7	2.75	836	19.7	214.6	2.63	766	20.4	199.5	2.44
80	87	886	20.1	19.4	17.5	19.3	20.2	2.69	6.0	11.4	0.34	5.96	28.2	93	3.36	0.174	0.166	6.3	0.35	2765	1278	165	53	C	M	0.2749	243.6	2.81	877	19.6	236.4	2.73	806	20.4	226.9	2.62	749	20.9	213.2	2.46
85	92	839	20.9	20.2	18.0	19.8	20.7	2.77	6.1	11.7	0.34	6.34	28.8	92	3.45	0.174	0.167	6.3	0.36	2806	1278	164	53	C	M	0.3026	253.9	2.77	832	20.3	246.8	2.69	776	21.0	237.8	2.59	729	21.5	225.4	2.46
90	97	796	21.6	20.9	18.5	20.3	21.2	2.85	6.2	12.1	0.34	6.72	29.2	91	3.54	0.175	0.167	6.3	0.36	2841	1278	163	53	C	M	0.3304	263.0	2.72	791	21.0	255.9	2.65	746	21.6	247.5	2.56	708	22.1	236.1	2.44
95	102	757	22.3	21.6	19.0	20.7	21.6	2.93	6.4	12.3	0.34	7.09	29.6	90	3.63	0.176	0.168	6.3	0.37	2870	1278	162	54	C	M	0.3580	271.0	2.67	753	21.7	264.1	2.60	717	22.2	256.0	2.52	685	22.7	245.5	2.41
100	107	722	23.0	22.2	19.4	21.1	22.0	3.01	6.5	12.6	0.34	7.45	30.0	89	3.72	0.176	0.169	6.2	0.38	2894	1278	161	54	C	M	0.3855	278.3	2.61	719	22.3	271.5	2.55	689	22.8	263.6	2.47	663	23.2	254.0	2.38
105	112	690	23.6	22.9	19.8	21.5	22.4	3.08	6.6	12.8	0.34	7.81	30.2	88	3.81	0.177	0.170	6.2	0.38	2915	1278	160	54	C	M	0.4126	284.7	2.55	688	22.9	278.0	2.49	663	23.4	270.3	2.42	641	23.8	261.4	2.34
110	117	660	24.2	23.5	20.2	21.8	22.7	3.15	6.7	13.0	0.34	8.16	30.5	87	3.89	0.178	0.171	6.2	0.39	2934	1278	158	54	C	M	0.4394	290.0	2.49	658	23.5	283.4	2.43	638	24.0	275.9	2.36	619	24.3	267.6	2.29
115	122	634	24.8	24.1	20.5	22.2	23.1	3.22	6.8	13.2	0.34	8.50	30.7	86	3.97	0.179	0.172	6.2	0.39	2950	1278	157	54	C	M	0.4659	295.4	2.43	633	24.1	288.8	2.37	615	24.5	281.4	2.31	599	24.8	273.7	2.25
120	127	609	25.4	24.6	20.9	22.5	23.4	3.28	6.9	13.4	0.34	8.83	30.9	85	4.05	0.180	0.173	6.1	0.39	2965	1278	156	54	C	M	0.4918	299.5	2.36	608	24.7	292.9	2.31	593	25.0	285.7	2.26	580	25.3	278.5	2.20
125	132	587	25.9	25.2	21.2	22.8	23.6	3.34	7.0	13.5	0.34	9.16	31.0	84	4.13	0.181	0.175	6.1	0.40	2978	1278	154	54	C	M	0.5172	303.6	2.31	586	25.2	297.1	2.26	574	25.5	290.0	2.20	562	25.8	283.2	2.15
130	137	566	26.5	25.7	21.5	23.0	23.9	3.40	7.1	13.7	0.34	9.48	31.2	83	4.20	0.183	0.176	6.1	0.40	2990	1278	153	54	C	M	0.5419	306.7	2.24	565	25.7	300.3	2.20	555	26.0	293.3	2.15	545	26.2	286.9	2.10
135	142	548	27.0	26.2	21.7	23.3	24.2	3.46	7.1	13.8	0.34	9.79	31.3	83	4.27	0.183	0.177	6.0	0.41	3002	1278	152	54	C	M	0.5662	310.3	2.19	548	26.2	303.9	2.15	538	26.5	296.9	2.10	529	26.7	290.8	2.05
140	147	531	27.5	26.7	22.0	23.5	24.4	3.51	7.2	13.9	0.34	10.10	31.5	82	4.34	0.184	0.178	6.0	0.41	3013	1278	151	54	C	M	0.5898	313.2	2.14	531	26.7	306.8	2.09	523	26.9	299.9	2.04	515	27.2	294.2	2.01
145	152	515	27.9	27.1	22.2	23.7	24.6	3.56	7.3	14.0	0.34	10.40	31.6	81	4.41	0.186	0.179	6.0	0.41	3024	1278	150	54	C	M	0.6128	315.6	2.08	515	27.1	309.2	2.04	508	27.4	302.4	1.99	501	27.6	296.9	1.96
150	157	500	28.4	27.6	22.5	24.0	24.8	3.61	7.4	14.0	0.34	10.69	31.7	80	4.47	0.187	0.180	5.9	0.41	3035	1278	149	53	C	M	0.6350	317.5	2.03	500	27.6	311.2	1.99	494	27.8	304.4	1.94	488	28.0	299.2	1.91
155	162	487	28.8	28.0	22.7	24.2	25.0	3.66	7.4	14.1	0.34	10.97	31.8	79	4.53	0.188	0.181	5.9	0.42	3046	1278	148	53	C	M	0.6567	319.8	1.98	487	28.0	313.6	1.94	482	28.2	306.8	1.90	476	28.4	301.8	1.87
160	167	474	29.3	28.5	22.9	24.4	25.2	3.71	7.5	14.1	0.34	11.25	31.9	79	4.59	0.189	0.182	5.9	0.42	3057	1278	147	53	C	M	0.6778	321.3	1.93	474	28.5	315.0	1.89	469	28.6	308.2	1.85	464	28.8	303.5	1.82
165	172	463	29.7	28.9	23.1	24.5	25.4	3.75	7.5	14.2	0.35	11.53	32.0	78	4.65	0.189	0.183	5.9	0.42	3067	1278	146	53	C	M	0.6981	323.2	1.88	463	28.9	317.0	1.85	459	29.0	310.3	1.81	454	29.2	305.7	1.78
170	177	452	30.1	29.3	23.3	24.7	25.5	3.80	7.6	14.2	0.35	11.79	32.1	77	4.70	0.190	0.184	5.9	0.42	3078	1278	146	53	C	M	0.7179	324.5	1.84	452	29.3	318.3	1.80	448	29.4	311.5	1.76	444	29.6	307.2	1.74
175	182	442	30.4	29.6	23.5	24.9	25.7	3.84	7.7	14.3	0.35	12.05	32.2	76	4.76	0.191	0.185	5.8	0.43	3090	1278	145	53	C	M	0.7369	325.7	1.79	442	29.6	319.6	1.76	439	29.8	312.9	1.72	435	29.9	308.6	1.70
180	187	433	30.8	30.0	23.6	25.0	25.9	3.88	7.7	14.3	0.35	12.31	32.3	76	4.81	0.192	0.186	5.8	0.43	3101	1278	144	53	C	M	0.7554	327.1	1.75	433	30.0	321.0	1.72	430	30.1	314.2	1.68	427	30.3	310.2	1.66

Table A75. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 16 m Initial Density = 3000 stems/ha																																								
5	12	2966	1.9	1.8	2.4	2.9	3.0	0.73	1.8	0.5	0.78	0.42	0.9	146	1.84	0.636	0.609	0.6	0.01	460	1684	31	12	A	M	0.0003	1.0	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	2886	3.7	3.5	3.8	4.6	4.9	0.88	2.5	1.2	0.67	0.61	3.1	118	1.86	0.402	0.382	1.6	0.03	725	1684	60	18	A	M	0.0022	6.3	0.38	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	2770	5.3	5.0	5.2	6.3	6.7	1.03	3.0	2.1	0.57	0.86	6.1	112	1.90	0.300	0.283	2.7	0.07	1030	1684	88	24	A	M	0.0062	17.2	0.79	200	8.6	2.8	0.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	2627	6.8	6.4	6.6	7.9	8.4	1.18	3.4	3.1	0.51	1.15	9.4	110	1.95	0.246	0.231	3.6	0.10	1342	1684	114	30	B	M	0.0128	33.6	1.26	821	9.0	16.1	0.60	16	12.9	0.8	0.03	2	14.0	0.1	0.00
25	32	2468	8.1	7.7	7.9	9.4	10.0	1.33	3.7	4.2	0.46	1.46	12.7	109	2.01	0.214	0.201	4.5	0.14	1640	1684	135	36	B	M	0.0219	54.1	1.71	1330	9.6	37.0	1.17	123	13.2	7.3	0.23	23	14.8	1.5	0.05
30	37	2301	9.4	8.9	9.1	10.8	11.5	1.47	3.9	5.1	0.43	1.78	15.9	107	2.08	0.193	0.182	5.2	0.18	1910	1684	152	41	B	M	0.0335	77.1	2.10	1598	10.4	61.4	1.67	337	13.6	23.9	0.65	111	15.1	8.7	0.24
35	42	2135	10.6	10.0	10.2	12.0	12.8	1.60	4.1	6.0	0.40	2.13	18.7	106	2.16	0.180	0.169	5.8	0.22	2147	1684	166	45	B	M	0.0474	101.2	2.43	1695	11.2	86.9	2.09	581	14.1	48.6	1.17	265	15.5	24.2	0.58
40	47	1975	11.7	11.1	11.2	13.1	14.0	1.73	4.3	6.8	0.38	2.48	21.2	105	2.25	0.171	0.161	6.2	0.25	2348	1684	175	49	B	M	0.0634	125.3	2.68	1695	12.1	112.2	2.40	790	14.6	77.0	1.65	446	15.9	47.0	1.01
45	52	1824	12.8	12.2	12.2	14.1	15.0	1.85	4.5	7.6	0.37	2.84	23.3	104	2.34	0.166	0.156	6.5	0.28	2516	1684	182	52	C	M	0.0814	148.4	2.87	1642	12.9	136.4	2.64	937	15.2	105.6	2.04	610	16.4	73.5	1.42
50	57	1684	13.8	13.2	13.1	15.1	16.0	1.97	4.7	8.3	0.36	3.21	25.1	102	2.44	0.162	0.152	6.8	0.30	2654	1684	187	54	C	M	0.1010	170.1	3.00	1563	13.8	158.9	2.80	1026	15.8	132.7	2.34	738	16.8	101.0	1.78
55	62	1556	14.8	14.1	13.9	15.9	16.9	2.08	4.8	8.9	0.35	3.58	26.6	101	2.54	0.159	0.150	6.9	0.32	2766	1684	189	56	C	M	0.1221	190.0	3.08	1474	14.6	179.5	2.91	1068	16.4	157.2	2.55	825	17.4	127.4	2.07
60	67	1440	15.7	15.1	14.7	16.7	17.7	2.18	5.0	9.5	0.34	3.95	27.9	100	2.64	0.158	0.149	7.0	0.34	2855	1684	191	57	C	M	0.1445	208.1	3.12	1383	15.4	198.2	2.97	1076	17.0	179.1	2.69	877	17.9	151.8	2.28
65	72	1336	16.6	15.9	15.3	17.4	18.4	2.29	5.2	10.0	0.34	4.33	28.9	99	2.74	0.157	0.149	7.1	0.35	2926	1684	191	58	C	M	0.1680	224.5	3.13	1296	16.3	215.0	3.00	1063	17.6	198.5	2.77	901	18.4	173.7	2.42
70	77	1242	17.5	16.8	16.0	18.0	19.1	2.38	5.3	10.5	0.33	4.71	29.7	98	2.84	0.157	0.149	7.1	0.36	2981	1684	190	58	C	M	0.1924	238.9	3.12	1213	17.1	229.8	3.00	1035	18.2	215.3	2.81	905	19.0	193.1	2.52
75	82	1158	18.3	17.6	16.6	18.6	19.7	2.48	5.5	10.9	0.33	5.08	30.4	96	2.94	0.158	0.149	7.1	0.37	3024	1684	189	59	C	M	0.2174	251.8	3.08	1137	17.8	243.0	2.98	1000	18.9	230.0	2.82	895	19.6	210.1	2.57
80	87	1083	19.1	18.4	17.2	19.2	20.2	2.57	5.6	11.3	0.33	5.45	31.0	95	3.04	0.159	0.150	7.1	0.38	3057	1684	187	59	C	M	0.2430	263.2	3.04	1068	18.6	254.7	2.94	960	19.5	242.8	2.80	876	20.1	225.0	2.60
85	92	1015	19.8	19.1	17.7	19.7	20.7	2.65	5.8	11.7	0.33	5.82	31.4	94	3.14	0.160	0.151	7.0	0.39	3082	1684	185	59	C	M	0.2690	273.0	2.98	1004	19.3	264.7	2.89	919	20.1	253.8	2.77	851	20.7	237.8	2.59
90	97	955	20.6	19.9	18.2	20.1	21.2	2.74	5.9	12.0	0.33	6.18	31.8	93	3.24	0.161	0.153	7.0	0.40	3101	1684	183	59	C	M	0.2951	281.8	2.92	946	20.0	273.8	2.83	879	20.7	263.6	2.73	823	21.3	249.1	2.58
95	102	900	21.3	20.6	18.6	20.6	21.6	2.82	6.0	12.3	0.33	6.54	32.0	92	3.33	0.162	0.154	6.9	0.40	3115	1684	180	59	C	M	0.3212	289.1	2.84	893	20.7	281.3	2.77	840	21.3	271.8	2.67	794	21.8	258.6	2.54
100	107	852	22.0	21.2	19.0	21.0	22.0	2.89	6.1	12.5	0.32	6.90	32.3	91	3.43	0.163	0.156	6.9	0.41	3126	1684	178	59	C	M	0.3474	296.0	2.77	847	21.3	288.4	2.70	803	21.9	279.2	2.62	765	22.4	267.2	2.50
105	112	808	22.6	21.9	19.4	21.3	22.4	2.97	6.3	12.8	0.33	7.25	32.4	90	3.52	0.165	0.157	6.8	0.41	3134	1684	176	59	C	M	0.3735	301.8	2.70	804	21.9	294.3	2.64	768	22.5	285.5	2.56	737	22.9	274.5	2.46
110	117	768	23.2	22.5	19.8	21.7	22.7	3.04	6.4	13.0	0.33	7.59	32.5	89	3.61	0.166	0.159	6.8	0.41	3140	1684	174	58	C	M	0.3993	306.7	2.63	765	22.6	299.3	2.57	736	23.0	290.9	2.49	709	23.4	280.7	2.41
115	122	732	23.8	23.1	20.1	22.0	23.1	3.10	6.5	13.2	0.33	7.93	32.7	88	3.70	0.168	0.160	6.7	0.42	3144	1684	171	58	C	M	0.4249	311.0	2.56	730	23.1	303.7	2.50	705	23.6	295.5	2.43	683	23.9	286.2	2.35
120	127	700	24.4	23.7	20.5	22.3	23.4	3.17	6.6	13.3	0.33	8.26	32.8	87	3.78	0.169	0.162	6.6	0.42	3147	1684	169	58	C	M	0.4500	315.0	2.49	698	23.7	307.9	2.43	678	24.1	299.9	2.37	659	24.4	291.2	2.30
125	132	670	25.0	24.2	20.8	22.6	23.6	3.23	6.7	13.5	0.33	8.58	32.8	86	3.86	0.171	0.163	6.6	0.42	3150	1684	167	57	C	M	0.4748	318.1	2.42	669	24.2	311.0	2.36	651	24.6	303.2	2.30	635	24.9	295.1	2.24
130	137	644	25.5	24.7	21.1	22.9	23.9	3.29	6.8	13.6	0.33	8.90	32.9	85	3.94	0.172	0.165	6.5	0.42	3153	1684	165	57	C	M	0.4991	321.4	2.35	643	24.8	314.4	2.30	628	25.1	306.7	2.24	614	25.4	299.2	2.19
135	142	619	26.0	25.3	21.3	23.1	24.2	3.35	6.9	13.7	0.33	9.21	32.9	84	4.02	0.174	0.166	6.5	0.42	3155	1684	164	57	C	M	0.5228	323.6	2.28	618	25.3	316.7	2.24	605	25.6	309.2	2.18	593	25.9	302.1	2.13
140	147	597	26.5	25.7	21.6	23.4	24.4	3.40	7.0	13.8	0.33	9.51	33.0	83	4.09	0.175	0.168	6.4	0.43	3157	1684	162	57	C	M	0.5461	326.0	2.22	596	25.8	319.2	2.18	585	26.1	311.7	2.13	575	26.3	305.1	2.08
145	152	577	27.0	26.2	21.8	23.6	24.6	3.46	7.0	13.9	0.33	9.81	33.1	83	4.16	0.176	0.169	6.4	0.43	3160	1684	160	57	C	M	0.5688	328.2	2.16	576	26.3	321.4	2.12	567	26.5	314.1	2.07	558	26.7	307.8	2.03
150	157	558	27.5	26.7	22.1	23.8	24.8	3.51	7.1	14.0	0.33	10.10	33.1	82	4.23	0.178	0.171	6.3	0.43	3163	1684	159	56	C	M	0.5909	329.7	2.10	558	26.7	323.0	2.06	549	27.0	315.7	2.02	541	27.2	309.7	1.98
155	162	541	27.9	27.1	22.3	24.0	25.0	3.56	7.2	14.1	0.33	10.39	33.1	81	4.30	0.179	0.172	6.3	0.43	3166	1684	157	56	C	M	0.6124	331.3	2.05	541	27.1	324.7	2.01	533	27.4	317.4	1.96	526	27.6	311.8	1.93
160	167	525	28.4	27.6	22.5	24.2	25.2	3.61	7.3	14.1	0.34	10.67	33.2	80	4.36	0.180	0.173	6.2	0.43	3170	1684	156	56	C	M	0.6333	332.5	1.99	525	27.6	325.9	1.96	518	27.8	318.8	1.91	512	28.0	313.3	1.88
165	172	510	28.8	28.0	22.7	24.4	25.4	3.66	7.3	14.2	0.34	10.94	33.2	79	4.43	0.181	0.174	6.2	0.43	3174	1684	155	56	C	M	0.6537	333.4	1.94	510	28.0	326.9	1.90	504	28.2	319.7	1.86	498	28.4	314.5	1.83
170	177	496	29.2	28.4	22.9	24.6	25.5	3.70	7.4	14.2	0.34	11.21	33.2	79	4.49	0.183	0.176	6.1	0.44	3179	1684	153	56	C	M	0.6734	334.0	1.89	496	28.4	327.5	1.85	491	28.6	320.5	1.81	486	28.7	315.0	1.79
175	182	484	29.6	28.8	23.1	24.7	25.7	3.74	7.4	14.2	0.34	11.47	33.3	78	4.55	0.184	0.177	6.1	0.44	3184	1684	152	56	C	M	0.6928	335.3	1.85	484	28.8	328.8	1.81	479	29.0	321.7	1.77	475	29.1	317.0	1.74
180	187	472	30.0	29.2	23.2	24.9	25.9	3.79	7.5	14.2	0.34	11.73	33.3	77	4.60	0.185	0.178	6.1	0.44	3190	1684	151	55	C	M	0.7112	335.7	1.80	472	29.2	329.3	1.76	468	29.3	322.3	1.73	464	29.5	317.7	1.70
SI = 16 m Initial Density = 4000 stems/ha																																								
5	12	3945	1.8	1.6	2.3	2.9	3.0	0.72	1.7	0.5	0.77	0.41	1.0	155	1.59	0.553	0.528	0.7	0.01	591	2045	38	16	A	M	0.0003	1.1	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	3820	3.5	3.2	3.7	4.6	4.9	0.85	2.3	1.2	0.65	0.58	3.6	123	1.62	0.350	0.332	1.9	0.04	899	2045	73	22	A	M	0.0018	7.0	0.42	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	3637	5.0	4.6	5.1	6.3	6.7	0.99	2.8	2.2	0.55	0.80	7.0	117	1.66	0.263	0.247	3.1	0.08	1247	2045	107	29	A	M	0.0053	19.1	0.88	147	8.4	1.9	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	3415	6.3	6.0	6.5	7.9	8.4	1.14	3.1	3.2	0.49	1.06	10.7	114	1.71	0.216	0.203	4.3	0.12	1596	2045	136	36	B	M	0.0109	37.2	1.39	824	8.8	14.8	0.55	7	12.7	0.3	0.01	0	0.0	0.0	0.00
25	32	3172	7.6	7.2	7.7	9.4	10.0	1.27	3.4	4.2	0.44	1.34	14.4	112	1.78	0.189	0.177	5.2	0.17	1921	2045	160	42	B	M	0.0188	59.6	1.88	1489	9.3	37.2	1.17	82	13.0	4.7	0.15	11	14.7	0.7	0.02
30	37	2923	8.8	8.4	8.9	10.7	11.5	1.41	3.6	5.1	0.41	1.63	17.8	111	1.85	0.172	0.161	6.0	0.21	2209	2045	179	48	B	M	0.0289	84.5	2.30	1870	10.0	64.0	1.75	282	13.4	19.2	0.52	74	14.9	5.6	0.15
35	42	2680	10.0	9.5	10.0	12.0	12.8	1.53	3.8	6.0	0.38	1.95	20.9	109	1.93	0.162	0.151	6.6	0.25	2455	2045	193	52	C	M	0.0412	110.4	2.65	2020	10.8	92.0	2.21	552	13.8	43.7	1.05	214	15.3	18.7	0.45
40	47	2450	11.1	10.5	11.0	13.1	14.0	1.66	4.0	6.8	0.37	2.28	23.5	108	2.02	0.155	0.145	7.1	0.28	2659	2045	202	56	C	M	0.0555	135.9	2.91	2031	11.6	119.4	2.56	806	14.3	73.8	1.58	405	15.6	40.4	0.87
45	52	2238	12.1	11.5	12.0	14.1	15.0	1.78	4.2	7.5	0.35	2.61	25.7	106	2.11	0.150	0.141	7.4	0.31	2823	2045	208	59	C	M	0.0716	160.2	3.10	1967	12.4	145.3	2.81	1000	14.8	105.2	2.04	597	16.0	67.7	1.31
50	57	2045	13.1	12.5	12.8	15.0	16.0	1.89	4.4	8.2	0.34	2.96	27.5	105	2.21	0.147	0.138	7.6	0.33	2953	2045	212	61	C	M	0.0894	182.8	3.23	1866	13.2	169.2	2.99	1124	15.3	135.1	2.38	757	16.5	97.0	1.71
55	62	1872	14.1	13.5	13.6	15.8	16.9	2.00	4.6	8.8	0.34	3.31	29.1	103	2.31	0.146	0.137	7.7	0.35	3055	2045	213	62	C	M	0.1087	203.5	3.30	1752	14.0	190.9	3.10	1188	15.9	162.1	2.63	873	17.0	125.8	2.04
60	67	1717	15.0	14.4	14.4	16.6	17.7	2.10	4.7	9.4	0.33	3.67	30.3	102	2.41	0.145	0.137	7.8	0.37	3132	2045	213	63	C	M	0.1293	222.0	3.33	1635	14.8	210.3	3.15	1209	16.5	186.0	2.79	947	17.5	152.5	2.29
65	72	1579	15.9	15.2	15.1	17.3	18.4	2.20	4.9	9.9	0.33	4.02	31.2	101	2.52	0.145	0.137	7.8	0.38	3190	2045	212	64	C	M	0.1510	238.5	3.33	1521	15.6	227.5	3.17	1199	17.1	206.8	2.89	985	18.0	176.4	2.46
70	77	1456	16.7	16.1	15.7	17.9	19.1	2.30	5.0	10.4	0.32	4.38	32.0	100	2.62	0.146	0.138	7.8	0.39	3232	2045	210	64	C	M	0.1738	253.0	3.30	1415	16.4	242.5	3.16	1170	17.7	224.7	2.93	997	18.5	197.5	2.58
75	82	1348	17.5	16.9	16.3	18.5	19.7	2.39	5.2	10.8	0.32	4.74	32.6	98	2.72	0.147	0.139	7.8	0.40	3262	2045	208	64	C	M	0.1972	265.8	3.25	1318	17.1	255.9	3.13	1130	18.3	240.2	2.94	991	19.0	215.9	2.64
80	87	1252	18.3	17.7	16.9	19.1	20.2	2.48	5.3	11.2	0.32	5.10	33.0	97	2.83	0.148	0.140	7.7	0.41	3283	2045	205	64	C	M	0.2212	277.0	3.20	1230	17.9	267.5	3.09	1084	18.9	253.4	2.92	972	19.6	231.8	2.67
85	92	1167	19.1	18.4	17.4	19.6	20.7	2.57	5.5	11.6	0.32	5.46	33.4	96	2.93	0.150	0.141	7.6	0.42	3296	2045	202	64	C	M	0.2458	286.8	3.13	1151	18.6	277.6	3.03	1037	19.5	265.0	2.89	946	20.1	245.6	2.68
90	97	1091	19.8	19.1	17.9	20.0	21.2	2.65	5.6	11.9	0.32	5.81	33.7	95	3.03	0.151	0.143	7.6	0.42	3303	2045	198	63	C	M	0.2706	295.2	3.05	1079	19.3	286.3	2.96	989	20.1	274.7	2.84	915	20.7	257.3	2.66
95	102	1023	20.5	19.8	18.3	20.5	21.6	2.73	5.8	12.2	0.32	6.16	33.8	94	3.13	0.153	0.145	7.5	0.43	3306	2045	195	63	C	M	0.2956	302.4	2.97	1014	19.9	293.8	2.89	942	20.7	282.9	2.78	882	21.2	267.3	2.63
100	107	963	21.2	20.5	18.7	20.9	22.0	2.81	5.9	12.5	0.32	6.50	34.0	93	3.22	0.154	0.146	7.4	0.43	3306	2045	192	63	C	M	0.3207	308.8	2.89	956	20.6	300.4	2.82	898	21.3	290.2	2.72	848	21.8	276.0	2.59
105	112	909	21.9	21.1	19.1	21.2	22.4	2.88	6.0	12.7	0.32	6.84	34.1	92	3.32	0.156	0.148	7.3	0.43	3304	2045	189	62	C	M	0.3457	314.2	2.81	903	21.2	306.0	2.74	856	21.8	296.3	2.65	815	22.3	283.4	2.54
110	117	860	22.5	21.8	19.5	21.6	22.7	2.95	6.1	12.9	0.32	7.18	34.1	90	3.41	0.158	0.150	7.2	0.43	3300	2045	186	62	C	M	0.3705	318.6	2.73	856	21.8	310.7	2.66	817	22.4	301.4	2.58	783	22.8	289.6	2.48
115	122	817	23.1	22.3	19.8	21.9	23.1	3.02	6.3	13.1	0.32	7.51	34.2	89	3.50	0.160	0.152	7.1	0.43	3295	2045	183	61	C	M	0.3952	322.9	2.65	814	22.4	315.1	2.59	782	22.9	306.2	2.52	753	23.3	295.3	2.43
120	127	778	23.7	22.9	20.1	22.2	23.4	3.09	6.4	13.3	0.32	7.83	34.2	88	3.59	0.161	0.153	7.0	0.44	3290	2045	180	61	C	M	0.4197	326.5	2.58	775	23.0	318.8	2.52	749	23.4	310.2	2.45	724	23.8	300.1	2.37
125	132	742	24.2	23.5	20.5	22.5	23.6	3.15	6.5	13.4	0.32	8.15	34.2	87	3.67	0.163	0.155	7.0	0.44	3285	2045	178	60	C	M	0.4437	329.2	2.50	740	23.5	321.7	2.44	717	24.0	313.3	2.38	697	24.3	304.0	2.31
130	137	710	24.8	24.0	20.7	22.8	23.9	3.21	6.6	13.6	0.32	8.47	34.2	87	3.75	0.165	0.157	6.9	0.44	3280	2045	175	60	C	M	0.4673	331.8	2.43	708	24.1	324.4	2.37	689	24.4	316.2	2.31	671	24.8	307.6	2.25
135	142	680	25.3	24.5	21.0	23.0	24.2	3.27	6.7	13.7	0.32	8.77	34.2	86	3.83	0.167	0.159	6.8	0.44	3275	2045	173	60	C	M	0.4906	333.6	2.35	679	24.6	326.3	2.30	662	24.9	318.3	2.25	647	25.2	310.2	2.19
140	147	654	25.8	25.0	21.3	23.3	24.4	3.32	6.7	13.8	0.33	9.07	34.2	85	3.91	0.168	0.160	6.7	0.44	3271	2045	171	59	C	M	0.5135	335.8	2.29	653	25.1	328.6	2.24	639	25.4	320.7	2.19	626	25.6	313.2	2.14
145	152	629	26.3	25.5	21.5	23.5	24.6	3.38	6.8	13.9	0.33	9.37	34.1	84	3.99	0.170	0.162	6.7	0.44	3267	2045	168	59	C	M	0.5356	336.9	2.22	628	25.5	329.9	2.18	616	25.8	322.1	2.12	604	26.1	315.0	2.08
150	157	607	26.8	26.0	21.7	23.7	24.8	3.43	6.9	14.0	0.33	9.66	34.2	83	4.06	0.171	0.164	6.6	0.44	3264	2045	167	59	C	M	0.5575	338.4	2.16	606	26.0	331.4	2.12	596	26.3	323.8	2.07	586	26.5	317.0	2.02
155	162	587	27.2	26.4	22.0	23.9	25.0	3.48	7.0	14.0	0.33	9.94	34.2	82	4.13	0.173	0.165	6.5	0.44	3262	2045	165	58	C	M	0.5789	339.8	2.10	586	26.5	332.8	2.06	577	26.7	325.2	2.01	568	26.9	318.9	1.97
160	167	568	27.7	26.9	22.2	24.1	25.2	3.53	7.1	14.1	0.33	10.22	34.1	81	4.20	0.174	0.166	6.5	0.44	3260	2045	163	58	C	M	0.5995	340.5	2.04	568	26.9	333.7	2.00	560	27.1	326.2	1.96	551	27.3	320.1	1.92
165	172	551	28.1	27.3	22.4	24.3	25.4	3.58	7.1	14.1	0.33	10.49	34.2	80	4.26	0.175	0.168	6.4	0.45	3259	2045	162	58	C	M	0.6198	341.5	1.99	551	27.3	334.7	1.95	544	27.5	327.3	1.91	536	27.7	321.5	1.87
170	177	535	28.5	27.7	22.6	24.5	25.5	3.62	7.2	14.2	0.33	10.76	34.1	80	4.32	0.177	0.169	6.4	0.45	3259	2045	160	58	C	M	0.6394	342.1	1.94	535	27.7	335.3	1.90	528	27.9	327.9	1.86	522	28.1	322.5	1.83
175	182	520	28.9	28.1	22.7	24.6	25.7	3.67	7.3	14.2	0.34	11.02	34.1	79	4.39	0.178	0.171	6.3	0.45	3260	2045	159	57	C	M	0.6585	342.4	1.88	520	28.1	335.7	1.85	514	28.3	328.4	1.81	508	28.5	323.1	1.78
180	187	506	29.3	28.5	22.9	24.8	25.9	3.71	7.3	14.2	0.34	11.28	34.1	78	4.45	0.179	0.172	6.3	0.45	3261	2045	157	57	C	M	0.6771	342.6	1.84	506	28.5	335.9	1.80	501	28.7	328.7	1.76	496	28.8	323.7	1.73

Table A76. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 16 m Initial Density = 5000 stems/ha																																								
5	12	4923	1.7	1.5	2.3	2.9	3.0	0.71	1.6	0.5	0.75	0.40	1.1	163	1.43	0.496	0.473	0.8	0.01	718	2378	45	20	A	M	0.0002	1.2	0.10	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	4745	3.3	3.0	3.7	4.6	4.9	0.84	2.2	1.2	0.63	0.56	4.0	128	1.45	0.315	0.298	2.2	0.04	1064	2378	85	26	A	M	0.0016	7.5	0.45	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	4489	4.7	4.4	5.0	6.3	6.7	0.97	2.7	2.2	0.54	0.76	7.7	120	1.49	0.237	0.223	3.6	0.09	1448	2378	123	34	B	M	0.0046	20.7	0.96	106	8.3	1.3	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	4182	6.0	5.6	6.4	7.9	8.4	1.10	3.0	3.2	0.47	0.99	11.8	117	1.55	0.196	0.183	4.8	0.14	1826	2378	156	42	B	M	0.0096	40.1	1.50	793	8.6	13.3	0.50	3	12.6	0.1	0.00	0	0.0	0.0	0.00
25	32	3850	7.2	6.8	7.6	9.4	10.0	1.23	3.2	4.1	0.43	1.25	15.8	115	1.61	0.172	0.161	5.9	0.18	2171	2378	182	48	B	M	0.0166	64.0	2.02	1588	9.1	36.6	1.16	55	12.9	3.1	0.10	6	14.5	0.4	0.01
30	37	3516	8.4	8.0	8.8	10.7	11.5	1.36	3.4	5.1	0.40	1.53	19.5	113	1.69	0.158	0.147	6.7	0.23	2472	2378	202	54	C	M	0.0257	90.4	2.47	2083	9.7	65.3	1.78	231	13.2	15.2	0.41	49	14.8	3.6	0.10
35	42	3194	9.5	9.0	9.8	11.9	12.8	1.48	3.6	5.9	0.37	1.82	22.7	111	1.77	0.149	0.138	7.4	0.27	2722	2378	216	58	C	M	0.0368	117.6	2.82	2293	10.4	95.2	2.28	508	13.6	38.7	0.93	170	15.1	14.3	0.34
40	47	2895	10.6	10.1	10.9	13.0	14.0	1.60	3.8	6.7	0.36	2.13	25.4	110	1.86	0.143	0.133	7.8	0.31	2924	2378	225	62	C	M	0.0498	144.2	3.09	2324	11.2	124.4	2.67	795	14.0	69.6	1.49	359	15.4	34.5	0.74
45	52	2622	11.6	11.1	11.8	14.0	15.0	1.72	4.0	7.5	0.34	2.45	27.7	108	1.95	0.139	0.130	8.1	0.34	3083	2378	231	64	C	M	0.0646	169.4	3.28	2254	12.0	151.7	2.94	1028	14.5	102.9	1.99	567	15.8	61.5	1.19
50	57	2378	12.6	12.0	12.6	14.9	16.0	1.83	4.2	8.1	0.33	2.78	29.5	107	2.05	0.137	0.128	8.3	0.36	3205	2378	233	66	C	M	0.0810	192.7	3.40	2136	12.7	176.8	3.12	1187	15.0	135.0	2.38	753	16.2	91.9	1.62
55	62	2160	13.5	12.9	13.4	15.8	16.9	1.94	4.3	8.8	0.33	3.11	31.0	105	2.15	0.136	0.128	8.4	0.38	3297	2378	234	67	C	M	0.0989	213.7	3.47	1998	13.5	199.2	3.23	1276	15.6	164.2	2.66	895	16.7	122.3	1.98
60	67	1968	14.4	13.8	14.2	16.5	17.7	2.04	4.5	9.3	0.32	3.45	32.2	104	2.25	0.136	0.128	8.5	0.40	3364	2378	233	68	C	M	0.1181	232.5	3.49	1858	14.3	219.2	3.29	1311	16.1	189.8	2.85	990	17.1	150.9	2.26
65	72	1799	15.3	14.7	14.8	17.2	18.4	2.14	4.7	9.8	0.32	3.80	33.1	102	2.36	0.137	0.128	8.5	0.41	3410	2378	230	68	C	M	0.1385	249.2	3.48	1722	15.1	236.8	3.30	1308	16.7	212.0	2.96	1044	17.6	176.6	2.46
70	77	1651	16.1	15.5	15.5	17.9	19.1	2.24	4.8	10.3	0.31	4.14	33.8	101	2.46	0.138	0.129	8.4	0.42	3442	2378	227	68	C	M	0.1599	264.0	3.44	1597	15.8	252.3	3.29	1282	17.3	231.2	3.02	1067	18.1	199.4	2.60
75	82	1520	17.0	16.3	16.1	18.5	19.7	2.33	5.0	10.8	0.31	4.49	34.3	100	2.56	0.139	0.130	8.3	0.43	3461	2378	224	68	C	M	0.1820	276.7	3.39	1481	16.6	265.7	3.25	1240	17.9	247.4	3.03	1067	18.6	219.1	2.68
80	87	1405	17.7	17.1	16.6	19.0	20.2	2.42	5.1	11.1	0.31	4.83	34.7	99	2.67	0.140	0.132	8.2	0.43	3471	2378	220	68	C	M	0.2048	287.8	3.32	1376	17.3	277.4	3.20	1190	18.4	261.2	3.01	1050	19.2	236.0	2.72
85	92	1303	18.5	17.8	17.1	19.5	20.7	2.50	5.3	11.5	0.31	5.18	35.0	97	2.77	0.142	0.134	8.1	0.44	3473	2378	216	67	C	M	0.2282	297.3	3.24	1282	18.0	287.3	3.13	1137	19.0	272.9	2.98	1024	19.7	250.4	2.73
90	97	1213	19.2	18.5	17.6	20.0	21.2	2.59	5.4	11.8	0.31	5.52	35.2	96	2.87	0.144	0.136	8.0	0.44	3471	2378	212	67	C	M	0.2519	305.5	3.16	1197	18.7	295.9	3.06	1083	19.6	282.8	2.93	991	20.2	262.7	2.72
95	102	1134	19.9	19.2	18.0	20.4	21.6	2.66	5.6	12.1	0.31	5.86	35.3	95	2.97	0.146	0.137	7.9	0.45	3465	2378	208	66	C	M	0.2758	312.8	3.08	1122	19.4	303.5	2.99	1031	20.2	291.4	2.87	956	20.7	273.4	2.69
100	107	1063	20.6	19.9	18.5	20.8	22.0	2.74	5.7	12.4	0.31	6.20	35.4	94	3.07	0.148	0.139	7.8	0.45	3456	2378	204	66	C	M	0.2999	318.8	2.99	1054	20.0	309.8	2.90	981	20.7	298.5	2.80	919	21.3	282.3	2.65
105	112	1000	21.2	20.5	18.8	21.2	22.4	2.81	5.8	12.6	0.31	6.53	35.5	93	3.16	0.150	0.141	7.7	0.45	3446	2378	200	65	C	M	0.3240	324.0	2.90	993	20.6	315.3	2.82	934	21.3	304.7	2.73	883	21.8	290.0	2.60
110	117	944	21.9	21.2	19.2	21.5	22.7	2.89	6.0	12.8	0.31	6.86	35.5	92	3.25	0.151	0.143	7.6	0.45	3434	2378	197	65	C	M	0.3480	328.5	2.82	938	21.3	320.0	2.74	890	21.8	310.0	2.66	847	22.3	296.5	2.54
115	122	893	22.5	21.8	19.6	21.8	23.1	2.95	6.1	13.0	0.31	7.18	35.4	91	3.35	0.153	0.145	7.5	0.45	3422	2378	193	64	C	M	0.3719	332.1	2.73	888	21.8	323.8	2.66	849	22.4	314.2	2.58	813	22.8	301.9	2.48
120	127	847	23.1	22.3	19.9	22.1	23.4	3.02	6.2	13.2	0.32	7.50	35.4	90	3.44	0.155	0.147	7.4	0.45	3411	2378	190	64	C	M	0.3955	335.0	2.64	843	22.4	327.0	2.58	810	22.9	317.7	2.51	780	23.3	306.4	2.42
125	132	806	23.6	22.9	20.2	22.4	23.6	3.08	6.3	13.4	0.32	7.81	35.3	89	3.52	0.157	0.149	7.3	0.45	3399	2378	186	63	C	M	0.4190	337.7	2.56	803	22.9	329.8	2.50	775	23.4	320.8	2.44	750	23.8	310.4	2.36
130	137	769	24.2	23.4	20.5	22.7	23.9	3.14	6.4	13.5	0.32	8.12	35.3	88	3.61	0.159	0.151	7.2	0.45	3388	2378	184	62	C	M	0.4420	339.9	2.49	767	23.5	332.2	2.43	743	23.9	323.5	2.37	721	24.2	313.8	2.30
135	142	736	24.7	23.9	20.7	22.9	24.2	3.20	6.5	13.6	0.32	8.42	35.3	87	3.69	0.161	0.153	7.1	0.45	3377	2378	181	62	C	M	0.4648	342.1	2.41	734	24.0	334.5	2.36	714	24.4	326.0	2.30	695	24.7	317.0	2.24
140	147	705	25.2	24.4	21.0	23.2	24.4	3.26	6.6	13.7	0.32	8.72	35.2	86	3.77	0.163	0.154	7.0	0.45	3367	2378	178	61	C	M	0.4871	343.4	2.34	704	24.5	335.9	2.29	686	24.8	327.6	2.23	670	25.1	319.2	2.18
145	152	677	25.7	24.9	21.2	23.4	24.6	3.31	6.7	13.8	0.32	9.01	35.1	85	3.84	0.164	0.156	6.9	0.45	3358	2378	176	61	C	M	0.5090	344.6	2.27	676	25.0	337.2	2.22	661	25.3	329.1	2.17	647	25.6	321.2	2.12
150	157	652	26.2	25.4	21.5	23.6	24.8	3.37	6.8	13.9	0.32	9.30	35.1	84	3.92	0.166	0.158	6.9	0.45	3350	2378	174	61	C	M	0.5305	345.9	2.21	651	25.4	338.6	2.16	638	25.7	330.6	2.11	626	26.0	323.2	2.06
155	162	628	26.6	25.9	21.7	23.8	25.0	3.42	6.8	14.0	0.33	9.58	35.0	83	3.99	0.168	0.159	6.8	0.45	3343	2378	171	60	C	M	0.5514	346.3	2.14	627	25.9	339.1	2.10	616	26.2	331.2	2.05	605	26.4	324.2	2.01
160	167	607	27.1	26.3	21.9	24.0	25.2	3.47	6.9	14.0	0.33	9.86	35.0	82	4.06	0.169	0.161	6.7	0.45	3337	2378	169	60	C	M	0.5718	347.1	2.08	606	26.3	340.0	2.04	597	26.6	332.3	1.99	587	26.8	325.6	1.95
165	172	587	27.5	26.7	22.1	24.2	25.4	3.51	7.0	14.1	0.33	10.13	34.9	81	4.13	0.171	0.163	6.7	0.45	3332	2378	167	59	C	M	0.5918	347.4	2.02	587	26.7	340.4	1.98	578	27.0	332.7	1.94	569	27.2	326.4	1.90
170	177	569	27.9	27.1	22.3	24.4	25.5	3.56	7.1	14.1	0.33	10.39	34.9	81	4.19	0.172	0.164	6.6	0.45	3328	2378	166	59	C	M	0.6112	347.8	1.97	569	27.1	340.9	1.93	561	27.4	333.3	1.89	553	27.6	327.3	1.85
175	182	552	28.3	27.5	22.5	24.5	25.7	3.61	7.1	14.2	0.33	10.65	34.8	80	4.26	0.174	0.166	6.5	0.45	3325	2378	164	59	C	M	0.6303	347.9	1.91	552	27.5	341.0	1.88	545	27.8	333.5	1.84	538	28.0	327.8	1.80
180	187	537	28.7	27.9	22.6	24.7	25.9	3.65	7.2	14.2	0.33	10.91	34.8	79	4.32	0.175	0.167	6.5	0.45	3322	2378	162	59	C	M	0.6486	348.3	1.87	537	27.9	341.5	1.83	531	28.1	334.0	1.79	524	28.3	328.5	1.76
SI = 16 m Initial Density = 6000 stems/ha																																								
5	12	5898	1.6	1.5	2.3	2.9	3.0	0.71	1.6	0.5	0.74	0.39	1.1	170	1.30	0.453	0.432	0.9	0.01	843	2690	51	23	A	M	0.0002	1.3	0.11	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	5665	3.1	2.9	3.6	4.6	4.9	0.82	2.1	1.3	0.62	0.54	4.3	131	1.33	0.289	0.272	2.4	0.05	1222	2690	96	31	B	M	0.0014	8.0	0.48	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	5330	4.5	4.2	5.0	6.3	6.7	0.95	2.5	2.2	0.53	0.73	8.4	123	1.37	0.218	0.204	4.0	0.10	1636	2690	138	39	B	M	0.0041	22.0	1.02	75	8.3	0.9	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	4932	5.7	5.4	6.3	7.9	8.4	1.08	2.8	3.2	0.46	0.94	12.8	119	1.42	0.181	0.169	5.3	0.15	2038	2690	174	47	B	M	0.0086	42.6	1.60	743	8.5	11.8	0.44	2	12.3	0.1	0.00	0	0.0	0.0	0.00
25	32	4508	6.9	6.6	7.5	9.3	10.0	1.20	3.1	4.1	0.42	1.19	17.1	117	1.49	0.160	0.149	6.5	0.20	2399	2690	202	53	C	M	0.0150	67.7	2.14	1644	9.0	35.6	1.12	36	12.8	2.0	0.06	3	14.3	0.2	0.01
30	37	4086	8.1	7.6	8.6	10.7	11.5	1.33	3.3	5.0	0.39	1.45	20.9	115	1.56	0.147	0.136	7.4	0.25	2707	2690	223	59	C	M	0.0233	95.3	2.60	2250	9.5	65.6	1.79	187	13.1	12.0	0.33	32	14.7	2.3	0.06
35	42	3685	9.2	8.7	9.7	11.9	12.8	1.45	3.5	5.9	0.36	1.73	24.3	113	1.65	0.139	0.129	8.0	0.29	2959	2690	237	64	C	M	0.0335	123.5	2.96	2526	10.2	97.2	2.33	459	13.5	34.0	0.82	134	15.0	11.0	0.26
40	47	3316	10.2	9.7	10.7	13.0	14.0	1.56	3.6	6.7	0.35	2.02	27.1	111	1.74	0.134	0.124	8.5	0.33	3159	2690	246	67	C	M	0.0455	151.0	3.24	2581	10.9	127.9	2.74	768	13.9	65.0	1.39	313	15.3	29.2	0.63
45	52	2984	11.2	10.7	11.6	14.0	15.0	1.67	3.8	7.4	0.34	2.32	29.4	110	1.83	0.131	0.122	8.8	0.36	3312	2690	251	69	C	M	0.0593	176.9	3.42	2511	11.6	156.5	3.03	1035	14.3	99.5	1.93	529	15.6	55.5	1.07
50	57	2690	12.2	11.6	12.5	14.9	16.0	1.78	4.0	8.1	0.33	2.64	31.2	108	1.93	0.130	0.121	9.0	0.38	3426	2690	252	71	D	M	0.0746	200.7	3.54	2380	12.4	182.6	3.22	1226	14.8	133.5	2.36	735	16.0	86.3	1.52
55	62	2430	13.1	12.5	13.2	15.7	16.9	1.89	4.2	8.7	0.32	2.96	32.7	107	2.03	0.129	0.120	9.0	0.40	3508	2690	252	72	D	M	0.0914	222.1	3.60	2223	13.2	205.8	3.34	1340	15.3	164.5	2.67	899	16.4	117.9	1.91
60	67	2203	14.0	13.4	14.0	16.5	17.7	1.99	4.3	9.3	0.32	3.28	33.8	105	2.13	0.129	0.121	9.0	0.42	3565	2690	249	72	D	M	0.1095	241.2	3.62	2062	13.9	226.3	3.39	1392	15.8	191.9	2.88	1015	16.9	148.0	2.22
65	72	2005	14.8	14.2	14.6	17.2	18.4	2.09	4.5	9.8	0.31	3.61	34.7	104	2.23	0.130	0.121	9.0	0.43	3602	2690	246	72	D	M	0.1287	258.1	3.60	1907	14.7	244.4	3.41	1399	16.4	215.5	3.01	1086	17.4	175.4	2.45
70	77	1831	15.7	15.1	15.3	17.8	19.1	2.18	4.7	10.2	0.31	3.95	35.3	102	2.34	0.131	0.123	8.9	0.44	3623	2690	242	72	D	M	0.1489	272.7	3.56	1762	15.4	260.0	3.39	1375	16.9	235.5	3.07	1120	17.8	199.5	2.60
75	82	1679	16.5	15.8	15.9	18.4	19.7	2.28	4.8	10.7	0.31	4.28	35.8	101	2.44	0.133	0.124	8.8	0.45	3632	2690	238	72	D	M	0.1700	285.5	3.50	1629	16.2	273.5	3.35	1334	17.5	252.5	3.09	1127	18.3	220.4	2.70
80	87	1547	17.3	16.6	16.4	18.9	20.2	2.36	5.0	11.1	0.31	4.62	36.2	100	2.54	0.134	0.126	8.7	0.45	3633	2690	233	71	D	M	0.1918	296.7	3.42	1511	16.9	285.3	3.29	1282	18.1	267.0	3.08	1115	18.8	238.5	2.75
85	92	1430	18.0	17.3	16.9	19.4	20.7	2.45	5.1	11.4	0.31	4.95	36.4	99	2.64	0.136	0.128	8.6	0.46	3627	2690	228	71	D	M	0.2141	306.1	3.34	1403	17.6	295.3	3.22	1226	18.6	279.1	3.04	1090	19.3	253.7	2.77
90	97	1327	18.7	18.1	17.4	19.9	21.2	2.53	5.3	11.7	0.31	5.28	36.5	97	2.75	0.138	0.130	8.4	0.46	3616	2690	223	70	D	M	0.2368	314.2	3.25	1307	18.2	303.9	3.14	1167	19.2	289.3	2.99	1057	19.9	266.6	2.76
95	102	1236	19.4	18.7	17.8	20.3	21.6	2.61	5.4	12.0	0.31	5.62	36.6	96	2.84	0.140	0.132	8.3	0.46	3603	2690	219	69	C	M	0.2598	321.1	3.16	1221	18.9	311.2	3.06	1110	19.8	297.9	2.93	1020	20.4	277.6	2.73
100	107	1156	20.1	19.4	18.2	20.7	22.0	2.68	5.5	12.3	0.31	5.94	36.6	95	2.94	0.142	0.134	8.2	0.46	3586	2690	214	69	C	M	0.2830	327.1	3.07	1144	19.5	317.6	2.98	1055	20.3	305.2	2.86	982	20.9	287.1	2.69
105	112	1084	20.7	20.0	18.6	21.1	22.4	2.76	5.7	12.6	0.31	6.27	36.6	94	3.04	0.144	0.136	8.0	0.46	3569	2690	210	68	C	M	0.3062	331.9	2.97	1075	20.2	322.7	2.89	1003	20.9	311.2	2.79	942	21.4	294.8	2.64
110	117	1020	21.4	20.7	19.0	21.4	22.7	2.83	5.8	12.8	0.31	6.59	36.6	93	3.13	0.146	0.138	7.9	0.46	3551	2690	206	67	C	M	0.3294	336.0	2.88	1013	20.8	327.1	2.80	954	21.4	316.3	2.71	904	21.9	301.4	2.58
115	122	963	22.0	21.2	19.3	21.7	23.1	2.90	5.9	13.0	0.31	6.91	36.5	92	3.22	0.148	0.140	7.8	0.46	3533	2690	202	66	C	M	0.3526	339.6	2.79	957	21.3	330.9	2.72	909	21.9	320.6	2.63	867	22.4	307.0	2.52
120	127	912	22.6	21.8	19.6	22.0	23.4	2.96	6.0	13.1	0.31	7.22	36.4	91	3.31	0.150	0.142	7.7	0.46	3515	2690	198	66	C	M	0.3757	342.6	2.70	907	21.9	334.1	2.64	868	22.4	324.3	2.56	832	22.8	311.8	2.46
125	132	866	23.1	22.4	19.9	22.3	23.6	3.02	6.1	13.3	0.31	7.53	36.3	90	3.40	0.152	0.144	7.6	0.46	3498	2690	194	65	C	M	0.3984	345.0	2.62	862	22.5	336.8	2.56	829	22.9	327.3	2.49	799	23.3	315.8	2.40
130	137	824	23.7	22.9	20.2	22.6	23.9	3.09	6.2	13.4	0.31	7.83	36.2	89	3.48	0.154	0.146	7.4	0.46	3481	2690	191	65	C	M	0.4210	346.9	2.54	821	23.0	338.8	2.48	793	23.4	329.6	2.41	767	23.8	319.0	2.33
135	142	787	24.2	23.4	20.5	22.8	24.2	3.14	6.3	13.6	0.32	8.13	36.2	88	3.56	0.156	0.148	7.4	0.46	3466	2690	188	64	C	M	0.4432	348.8	2.46	785	23.5	340.8	2.41	761	23.9	332.0	2.34	738	24.2	322.0	2.27
140	147	752	24.7	23.9	20.7	23.1	24.4	3.20	6.4	13.7	0.32	8.42	36.0	87	3.65	0.158	0.149	7.2	0.46	3451	2690	185	63	C	M	0.4650	349.7	2.38	750	24.0	341.9	2.33	730	24.4	333.3	2.27	710	24.7	324.0	2.21
145	152	721	25.2	24.4	21.0	23.3	24.6	3.26	6.5	13.8	0.32	8.71	35.9	86	3.72	0.160	0.151	7.2	0.46	3438	2690	182	63	C	M	0.4865	350.8	2.31	719	24.5	343.1	2.26	702	24.8	334.6	2.21	685	25.1	326.0	2.15
150	157	693	25.7	24.9	21.2	23.5	24.8	3.31	6.6	13.9	0.32	8.99	35.9	85	3.80	0.161	0.153	7.1	0.46	3426	2690	180	62	C	M	0.5075	351.7	2.24	692	24.9	344.2	2.20	676	25.3	335.9	2.14	662	25.5	327.8	2.09
155	162	667	26.1	25.4	21.4	23.7	25.0	3.36	6.7	13.9	0.32	9.27	35.8	84	3.87	0.163	0.155	7.0	0.46	3415	2690	177	62	C	M	0.5282	352.3	2.18	666	25.4	344.9	2.13	653	25.7	336.7	2.08	640	25.9	329.1	2.04
160	167	643	26.6	25.8	21.6	23.9	25.2	3.41	6.8	14.0	0.32	9.54	35.7	83	3.94	0.165	0.156	6.9	0.46	3405	2690	175	61	C	M	0.5484	352.6	2.12	642	25.8	345.3	2.07	631	26.1	337.3	2.02	619	26.4	330.0	1.98
165	172	621	27.0	26.2	21.8	24.1	25.4	3.46	6.9	14.0	0.33	9.81	35.6	82	4.01	0.167	0.158	6.8	0.46	3396	2690	173	61	C	M	0.5681	352.8	2.06	620	26.3	345.5	2.01	610	26.5	337.6	1.97	600	26.7	330.8	1.93
170	177	601	27.4	26.6	22.0	24.3	25.5	3.51	6.9	14.1	0.33	10.08	35.5	81	4.08	0.168	0.160	6.8	0.46	3388	2690	171	61	C	M	0.5874	353.0	2.00	600	26.7	345.8	1.96	591	26.9	338.0	1.91	582	27.1	331.5	1.88
175	182	583	27.8	27.1	22.2	24.4	25.7	3.55	7.0	14.1	0.33	10.34	35.5	81	4.14	0.170	0.161	6.7	0.46	3382	2690	169	60	C	M	0.6062	353.4	1.95	583	27.1	346.3	1.91	575	27.3	338.5	1.86	566	27.5	332.3	1.83
180	187	565	28.2	27.4	22.4	24.6	25.9	3.59	7.1	14.1	0.33	10.59	35.4	80	4.21	0.171	0.163	6.7	0.46	3376	2690	167	60	C	M	0.6244	352.8	1.89	565	27.4	345.7	1.85	558	27.7	338.1	1.81	550	27.9	332.2	1.78

Table A77. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 16 m Initial Density = 7000 stems/ha																																								
5	12	6872	1.5	1.4	2.2	2.9	3.0	0.70	1.5	0.5	0.73	0.39	1.2	176	1.21	0.421	0.400	1.0	0.01	966	2986	57	27	A	M	0.0002	1.3	0.11	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	6579	3.0	2.8	3.6	4.6	4.9	0.81	2.1	1.3	0.61	0.52	4.6	135	1.23	0.269	0.253	2.7	0.05	1375	2986	107	35	B	M	0.0013	8.5	0.51	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	6161	4.3	4.0	4.9	6.3	6.7	0.93	2.4	2.2	0.51	0.70	9.0	126	1.27	0.203	0.190	4.3	0.10	1815	2986	153	43	B	M	0.0038	23.2	1.07	53	8.2	0.6	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	5669	5.5	5.2	6.2	7.9	8.4	1.05	2.7	3.2	0.45	0.91	13.7	122	1.33	0.169	0.157	5.8	0.16	2237	2986	191	51	C	M	0.0079	44.7	1.68	685	8.4	10.5	0.39	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	32	5149	6.7	6.3	7.4	9.3	10.0	1.18	2.9	4.1	0.41	1.13	18.1	119	1.39	0.150	0.139	7.0	0.22	2610	2986	221	58	C	M	0.0138	70.8	2.24	1668	8.8	34.2	1.08	24	12.8	1.3	0.04	2	14.0	0.1	0.00
30	37	4638	7.8	7.4	8.5	10.6	11.5	1.30	3.1	5.0	0.38	1.38	22.2	117	1.47	0.138	0.128	7.9	0.27	2924	2986	242	64	C	M	0.0214	99.4	2.71	2381	9.4	65.4	1.78	150	13.0	9.5	0.26	22	14.6	1.6	0.04
35	42	4157	8.9	8.4	9.6	11.8	12.8	1.41	3.3	5.8	0.36	1.65	25.6	115	1.55	0.131	0.121	8.6	0.31	3175	2986	256	68	C	M	0.0309	128.5	3.08	2725	10.0	98.5	2.36	410	13.4	29.7	0.71	105	14.9	8.5	0.20
40	47	3720	9.9	9.4	10.6	12.9	14.0	1.53	3.5	6.6	0.34	1.93	28.5	113	1.64	0.127	0.117	9.1	0.35	3370	2986	265	72	D	M	0.0421	156.7	3.36	2810	10.7	130.5	2.80	731	13.7	60.1	1.29	271	15.2	24.6	0.53
45	52	3330	10.9	10.3	11.5	13.9	15.0	1.64	3.7	7.3	0.33	2.22	30.8	111	1.73	0.124	0.115	9.4	0.38	3517	2986	269	74	D	M	0.0550	183.2	3.55	2745	11.4	160.3	3.10	1026	14.1	95.5	1.85	489	15.5	49.8	0.96
50	57	2986	11.8	11.3	12.3	14.8	16.0	1.74	3.9	8.0	0.32	2.52	32.7	109	1.83	0.123	0.114	9.5	0.40	3623	2986	269	75	D	M	0.0694	207.3	3.66	2603	12.1	187.1	3.30	1247	14.6	131.0	2.31	708	15.9	80.6	1.42
55	62	2686	12.7	12.2	13.1	15.7	16.9	1.85	4.0	8.6	0.31	2.83	34.1	108	1.93	0.123	0.114	9.6	0.42	3696	2986	268	76	D	M	0.0853	229.1	3.71	2431	12.9	211.0	3.42	1386	15.1	163.7	2.65	892	16.3	113.0	1.83
60	67	2425	13.6	13.0	13.8	16.4	17.7	1.95	4.2	9.2	0.31	3.14	35.2	106	2.03	0.124	0.115	9.6	0.44	3744	2986	265	76	D	M	0.1024	248.4	3.73	2252	13.6	232.0	3.48	1456	15.6	192.6	2.89	1028	16.7	144.4	2.17
65	72	2199	14.5	13.9	14.5	17.1	18.4	2.05	4.4	9.7	0.31	3.46	36.1	105	2.13	0.125	0.116	9.5	0.45	3771	2986	261	76	D	M	0.1207	265.4	3.70	2079	14.3	250.4	3.49	1474	16.1	217.5	3.03	1115	17.1	173.2	2.42
70	77	2001	15.3	14.7	15.1	17.7	19.1	2.14	4.5	10.2	0.30	3.79	36.7	103	2.24	0.126	0.117	9.4	0.46	3784	2986	256	76	D	M	0.1400	280.1	3.65	1917	15.1	266.2	3.47	1456	16.7	238.5	3.11	1161	17.6	198.5	2.59
75	82	1830	16.1	15.4	15.7	18.3	19.7	2.23	4.7	10.6	0.30	4.11	37.1	102	2.34	0.128	0.119	9.3	0.47	3785	2986	250	75	D	M	0.1601	293.0	3.59	1769	15.8	280.1	3.43	1417	17.2	256.4	3.14	1176	18.1	220.7	2.70
80	87	1680	16.8	16.2	16.2	18.9	20.2	2.32	4.8	11.0	0.30	4.44	37.4	101	2.44	0.129	0.121	9.1	0.47	3777	2986	245	75	D	M	0.1809	303.9	3.51	1636	16.5	291.8	3.37	1364	17.8	271.3	3.13	1169	18.6	239.6	2.76
85	92	1549	17.6	16.9	16.7	19.4	20.7	2.40	5.0	11.3	0.30	4.76	37.6	100	2.54	0.131	0.123	9.0	0.47	3764	2986	239	74	D	M	0.2023	313.4	3.42	1516	17.2	301.9	3.29	1305	18.3	283.9	3.10	1147	19.0	255.7	2.79
90	97	1434	18.3	17.6	17.2	19.8	21.2	2.48	5.1	11.7	0.30	5.09	37.7	98	2.64	0.133	0.125	8.8	0.48	3746	2986	234	73	D	M	0.2241	321.4	3.32	1409	17.8	310.5	3.21	1243	18.9	294.4	3.05	1115	19.5	269.3	2.79
95	102	1332	19.0	18.3	17.6	20.2	21.6	2.56	5.3	12.0	0.30	5.41	37.7	97	2.74	0.135	0.127	8.7	0.48	3725	2986	229	72	D	M	0.2463	328.1	3.23	1313	18.5	317.6	3.12	1182	19.4	303.1	2.98	1077	20.0	280.7	2.76
100	107	1243	19.7	19.0	18.0	20.6	22.0	2.64	5.4	12.2	0.30	5.73	37.7	96	2.84	0.137	0.129	8.5	0.48	3702	2986	224	71	D	M	0.2687	334.0	3.13	1229	19.1	323.9	3.04	1123	20.0	310.6	2.91	1037	20.5	290.5	2.72
105	112	1163	20.3	19.6	18.4	21.0	22.4	2.71	5.5	12.5	0.30	6.05	37.6	95	2.93	0.140	0.131	8.4	0.48	3679	2986	219	70	D	M	0.2912	338.7	3.03	1152	19.7	329.0	2.95	1067	20.5	316.6	2.84	996	21.0	298.5	2.67
110	117	1093	20.9	20.2	18.8	21.3	22.7	2.78	5.7	12.7	0.30	6.36	37.6	94	3.02	0.142	0.133	8.2	0.48	3655	2986	214	70	C	M	0.3137	342.9	2.94	1084	20.3	333.6	2.86	1015	21.0	322.0	2.76	956	21.5	305.6	2.62
115	122	1029	21.5	20.8	19.1	21.7	23.1	2.85	5.8	12.9	0.31	6.67	37.4	93	3.12	0.144	0.135	8.1	0.48	3631	2986	210	69	C	M	0.3362	346.0	2.84	1022	20.9	336.9	2.77	965	21.5	326.0	2.68	916	22.0	311.1	2.56
120	127	973	22.1	21.4	19.4	22.0	23.4	2.91	5.9	13.1	0.31	6.98	37.3	92	3.21	0.146	0.137	7.9	0.48	3609	2986	206	68	C	M	0.3586	348.9	2.75	967	21.5	340.1	2.68	920	22.0	329.7	2.60	879	22.5	316.1	2.50
125	132	922	22.7	21.9	19.7	22.3	23.6	2.97	6.0	13.2	0.31	7.28	37.2	90	3.29	0.148	0.139	7.8	0.48	3586	2986	202	67	C	M	0.3808	351.1	2.67	918	22.0	342.5	2.60	878	22.5	332.6	2.53	843	22.9	320.0	2.43
130	137	876	23.2	22.5	20.0	22.5	23.9	3.04	6.1	13.4	0.31	7.58	37.1	89	3.38	0.150	0.141	7.7	0.47	3565	2986	198	66	C	M	0.4029	352.9	2.58	872	22.5	344.5	2.52	839	23.0	334.9	2.45	809	23.4	323.3	2.37
135	142	835	23.7	23.0	20.3	22.8	24.2	3.09	6.2	13.5	0.31	7.87	36.9	88	3.46	0.152	0.143	7.6	0.47	3545	2986	194	66	C	M	0.4246	354.5	2.50	832	23.1	346.3	2.44	804	23.5	337.0	2.38	778	23.8	326.3	2.30
140	147	797	24.2	23.5	20.5	23.0	24.4	3.15	6.3	13.6	0.31	8.16	36.8	88	3.54	0.154	0.145	7.5	0.47	3527	2986	191	65	C	M	0.4459	355.4	2.42	795	23.5	347.4	2.37	771	24.0	338.4	2.31	748	24.3	328.4	2.24
145	152	763	24.7	24.0	20.8	23.2	24.6	3.21	6.4	13.7	0.32	8.45	36.7	87	3.62	0.156	0.147	7.4	0.47	3509	2986	188	64	C	M	0.4670	356.3	2.35	761	24.0	348.4	2.30	740	24.4	339.6	2.24	721	24.7	330.3	2.18
150	157	732	25.2	24.5	21.0	23.4	24.8	3.26	6.5	13.8	0.32	8.73	36.6	86	3.70	0.158	0.149	7.3	0.47	3493	2986	185	64	C	M	0.4877	357.0	2.28	730	24.5	349.2	2.23	713	24.8	340.6	2.17	696	25.1	331.9	2.12
155	162	703	25.7	24.9	21.2	23.6	25.0	3.31	6.6	13.9	0.32	9.00	36.4	85	3.77	0.160	0.151	7.2	0.47	3479	2986	182	63	C	M	0.5080	357.1	2.21	702	24.9	349.5	2.16	686	25.3	341.0	2.11	671	25.6	332.8	2.06
160	167	677	26.1	25.4	21.4	23.8	25.2	3.36	6.7	13.9	0.32	9.27	36.3	84	3.84	0.161	0.152	7.1	0.47	3465	2986	180	63	C	M	0.5279	357.4	2.14	676	25.4	349.8	2.10	662	25.7	341.5	2.05	649	26.0	333.8	2.00
165	172	653	26.6	25.8	21.6	24.0	25.4	3.41	6.8	14.0	0.32	9.54	36.2	83	3.91	0.163	0.154	7.0	0.47	3453	2986	177	62	C	M	0.5473	357.4	2.08	652	25.8	349.9	2.04	640	26.1	341.8	1.99	629	26.3	334.6	1.95
170	177	631	27.0	26.2	21.8	24.2	25.5	3.46	6.8	14.0	0.32	9.80	36.1	82	3.98	0.165	0.156	6.9	0.47	3443	2986	175	62	C	M	0.5664	357.4	2.02	630	26.2	350.0	1.98	620	26.5	342.0	1.94	610	26.7	335.1	1.90
175	182	611	27.4	26.6	22.0	24.3	25.7	3.50	6.9	14.1	0.33	10.06	36.0	81	4.05	0.166	0.157	6.9	0.47	3433	2986	173	61	C	M	0.5849	357.4	1.97	610	26.6	350.1	1.93	601	26.9	342.2	1.88	592	27.1	335.6	1.85
180	187	592	27.8	27.0	22.1	24.5	25.9	3.55	7.0	14.1	0.33	10.31	35.9	80	4.11	0.168	0.159	6.8	0.47	3425	2986	171	61	C	M	0.6030	357.0	1.91	592	27.0	349.8	1.87	583	27.3	341.9	1.83	575	27.5	335.7	1.80
SI = 16 m Initial Density = 7500 stems/ha																																								
5	12	7359	1.5	1.4	2.2	2.9	3.0	0.70	1.5	0.5	0.73	0.39	1.2	179	1.17	0.407	0.387	1.0	0.01	1027	3130	60	29	A	M	0.0002	1.4	0.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	7035	2.9	2.7	3.6	4.6	4.9	0.81	2.0	1.3	0.60	0.52	4.7	136	1.19	0.260	0.244	2.8	0.05	1450	3130	112	36	B	M	0.0012	8.7	0.52	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	6574	4.2	4.0	4.9	6.3	6.7	0.93	2.4	2.2	0.51	0.69	9.3	127	1.23	0.197	0.184	4.5	0.11	1902	3130	159	45	B	M	0.0036	23.7	1.09	44	8.2	0.5	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	6033	5.4	5.1	6.2	7.8	8.4	1.05	2.7	3.2	0.45	0.89	14.1	123	1.29	0.164	0.153	6.0	0.17	2332	3130	199	54	C	M	0.0076	45.6	1.71	654	8.4	9.8	0.37	0	0.0	0.1	0.00	0	0.0	0.0	0.00
25	32	5465	6.6	6.2	7.4	9.3	10.0	1.17	2.9	4.1	0.40	1.11	18.6	120	1.35	0.145	0.135	7.3	0.22	2710	3130	229	61	C	M	0.0132	72.3	2.28	1671	8.8	33.5	1.06	20	12.7	1.1	0.03	0	0.0	0.0	0.00
30	37	4908	7.7	7.3	8.5	10.6	11.5	1.28	3.1	5.0	0.37	1.35	22.7	118	1.43	0.134	0.124	8.2	0.28	3026	3130	251	66	C	M	0.0206	101.3	2.76	2434	9.3	65.1	1.78	134	13.0	8.4	0.23	18	14.6	1.3	0.04
35	42	4388	8.7	8.3	9.5	11.8	12.8	1.40	3.3	5.8	0.35	1.61	26.3	115	1.51	0.128	0.118	8.9	0.32	3277	3130	265	71	D	M	0.0298	130.8	3.14	2815	9.9	98.8	2.37	386	13.3	27.7	0.66	92	14.9	7.4	0.18
40	47	3916	9.7	9.3	10.5	12.9	14.0	1.51	3.5	6.6	0.34	1.89	29.2	114	1.60	0.124	0.114	9.3	0.36	3469	3130	273	74	D	M	0.0407	159.3	3.41	2916	10.6	131.5	2.82	711	13.7	57.8	1.24	252	15.1	22.7	0.49
45	52	3497	10.7	10.2	11.4	13.9	15.0	1.62	3.6	7.3	0.33	2.17	31.5	112	1.69	0.121	0.112	9.6	0.39	3612	3130	277	76	D	M	0.0532	185.9	3.60	2854	11.3	161.7	3.13	1017	14.1	93.4	1.81	469	15.4	47.2	0.91
50	57	3130	11.6	11.1	12.2	14.8	16.0	1.73	3.8	8.0	0.32	2.47	33.4	110	1.79	0.121	0.112	9.8	0.41	3714	3130	277	77	D	M	0.0672	210.3	3.71	2709	12.0	189.0	3.34	1252	14.5	129.4	2.28	693	15.8	77.8	1.37
55	62	2810	12.6	12.0	13.0	15.6	16.9	1.83	4.0	8.6	0.31	2.77	34.8	108	1.89	0.121	0.112	9.8	0.43	3783	3130	275	78	D	M	0.0826	232.2	3.77	2530	12.7	213.2	3.46	1404	15.0	162.9	2.64	886	16.2	110.5	1.79
60	67	2533	13.4	12.9	13.7	16.4	17.7	1.93	4.1	9.1	0.31	3.08	35.9	107	1.99	0.121	0.112	9.8	0.45	3826	3130	272	78	D	M	0.0993	251.6	3.77	2343	13.5	234.6	3.52	1483	15.5	192.6	2.89	1031	16.6	142.4	2.14
65	72	2292	14.3	13.7	14.4	17.1	18.4	2.03	4.3	9.6	0.30	3.40	36.7	105	2.09	0.122	0.114	9.7	0.46	3850	3130	267	78	D	M	0.1172	268.6	3.75	2160	14.2	253.0	3.53	1507	16.0	218.0	3.04	1125	17.0	171.7	2.40
70	77	2083	15.1	14.5	15.0	17.7	19.1	2.12	4.5	10.1	0.30	3.72	37.3	104	2.19	0.124	0.115	9.6	0.47	3858	3130	262	77	D	M	0.1360	283.3	3.69	1990	14.9	269.0	3.51	1492	16.5	239.6	3.13	1178	17.5	197.8	2.58
75	82	1902	15.9	15.3	15.6	18.3	19.7	2.21	4.6	10.5	0.30	4.04	37.7	103	2.29	0.125	0.117	9.5	0.47	3855	3130	256	77	D	M	0.1557	296.2	3.63	1836	15.6	282.8	3.46	1454	17.1	257.8	3.16	1197	18.0	220.4	2.70
80	87	1744	16.7	16.0	16.1	18.8	20.2	2.30	4.8	10.9	0.30	4.36	38.0	101	2.39	0.127	0.118	9.3	0.48	3844	3130	250	76	D	M	0.1761	307.1	3.54	1696	16.3	294.6	3.40	1401	17.6	273.0	3.15	1193	18.4	239.8	2.77
85	92	1606	17.4	16.7	16.6	19.3	20.7	2.38	4.9	11.3	0.30	4.68	38.2	100	2.50	0.129	0.120	9.1	0.48	3827	3130	245	75	D	M	0.1971	316.5	3.45	1570	17.0	304.7	3.32	1341	18.2	285.8	3.12	1172	18.9	256.3	2.80
90	97	1485	18.1	17.4	17.1	19.8	21.2	2.46	5.1	11.6	0.30	5.00	38.2	99	2.59	0.131	0.122	9.0	0.48	3805	3130	239	74	D	M	0.2185	324.5	3.36	1458	17.7	313.3	3.24	1279	18.7	296.5	3.07	1141	19.4	270.2	2.80
95	102	1379	18.8	18.1	17.5	20.2	21.6	2.54	5.2	11.9	0.30	5.32	38.2	98	2.69	0.133	0.125	8.8	0.48	3781	3130	233	73	D	M	0.2403	331.4	3.26	1359	18.3	320.7	3.15	1216	19.3	305.5	3.00	1104	19.9	282.1	2.77
100	107	1285	19.5	18.8	17.9	20.6	22.0	2.61	5.3	12.2	0.30	5.63	38.2	96	2.79	0.135	0.127	8.7	0.48	3756	3130	228	72	D	M	0.2623	337.1	3.16	1269	18.9	326.8	3.06	1156	19.8	313.0	2.93	1063	20.4	291.9	2.74
105	112	1201	20.1	19.4	18.3	21.0	22.4	2.69	5.5	12.4	0.30	5.95	38.1	95	2.89	0.138	0.129	8.5	0.48	3730.	3130	223	71	D	M	0.2845	341.7	3.06	1189	19.5	331.8	2.97	1097	20.3	319.0	2.86	1021	20.9	300.1	2.69
110	117	1127	20.7	20.0	18.7	21.3	22.7	2.76	5.6	12.7	0.30	6.26	38.0	94	2.98	0.140	0.131	8.3	0.48	3703	3130	218	71	C	M	0.3067	345.6	2.96	1117	20.1	336.1	2.88	1043	20.8	324.2	2.78	979	21.4	307.0	2.63
115	122	1061	21.3	20.6	19.0	21.6	23.1	2.82	5.7	12.9	0.30	6.57	37.9	93	3.07	0.142	0.133	8.2	0.48	3677	3130	213	70	C	M	0.3288	348.9	2.87	1053	20.7	339.7	2.79	992	21.4	328.4	2.70	939	21.8	312.8	2.57
120	127	1002	21.9	21.2	19.3	21.9	23.4	2.89	5.8	13.0	0.31	6.87	37.7	92	3.16	0.144	0.135	8.1	0.48	3652	3130	209	69	C	M	0.3510	351.7	2.78	996	21.3	342.7	2.71	945	21.9	332.0	2.62	900	22.3	317.7	2.51
125	132	949	22.5	21.7	19.6	22.2	23.6	2.95	6.0	13.2	0.31	7.17	37.6	91	3.25	0.146	0.137	7.9	0.48	3627	3130	205	68	C	M	0.3729	353.9	2.69	944	21.8	345.1	2.62	902	22.4	334.9	2.54	864	22.8	321.9	2.44
130	137	901	23.0	22.3	19.9	22.5	23.9	3.01	6.1	13.3	0.31	7.46	37.4	90	3.33	0.148	0.139	7.8	0.48	3604	3130	201	67	C	M	0.3947	355.6	2.60	897	22.3	347.0	2.54	861	22.8	337.2	2.47	829	23.2	325.2	2.38
135	142	858	23.5	22.8	20.2	22.7	24.2	3.07	6.2	13.5	0.31	7.76	37.3	89	3.41	0.150	0.141	7.7	0.48	3582	3130	197	67	C	M	0.4161	357.0	2.52	855	22.8	348.7	2.46	825	23.3	339.2	2.39	797	23.7	328.1	2.32
140	147	818	24.0	23.3	20.4	23.0	24.4	3.13	6.3	13.6	0.31	8.04	37.1	88	3.50	0.152	0.143	7.6	0.48	3562	3130	194	66	C	M	0.4373	357.7	2.44	815	23.4	349.5	2.38	790	23.8	340.4	2.32	766	24.1	330.0	2.25
145	152	783	24.5	23.8	20.7	23.2	24.6	3.18	6.4	13.7	0.31	8.33	37.0	87	3.57	0.154	0.145	7.5	0.48	3542	3130	191	65	C	M	0.4582	358.8	2.37	781	23.8	350.7	2.31	759	24.2	341.8	2.25	738	24.5	332.1	2.19
150	157	750	25.0	24.3	20.9	23.4	24.8	3.24	6.5	13.8	0.32	8.60	36.9	86	3.65	0.156	0.147	7.4	0.47	3525	3130	188	65	C	M	0.4787	359.0	2.29	748	24.3	351.1	2.24	729	24.7	342.4	2.19	711	25.0	333.4	2.13
155	162	721	25.5	24.7	21.1	23.6	25.0	3.29	6.5	13.8	0.32	8.88	36.8	85	3.72	0.158	0.149	7.3	0.47	3508	3130	185	64	C	M	0.4989	359.7	2.22	720	24.7	351.9	2.18	703	25.1	343.3	2.12	687	25.4	334.8	2.07
160	167	693	25.9	25.2	21.3	23.8	25.2	3.34	6.6	13.9	0.32	9.15	36.6	84	3.80	0.160	0.151	7.2	0.47	3493	3130	182	63	C	M	0.5185	359.3	2.16	692	25.2	351.7	2.11	677	25.5	343.3	2.06	663	25.8	335.3	2.01
165	172	669	26.4	25.6	21.5	24.0	25.4	3.39	6.7	14.0	0.32	9.41	36.5	83	3.87	0.161	0.152	7.1	0.47	3480	3130	180	63	C	M	0.5378	359.8	2.10	668	25.6	352.3	2.05	655	25.9	344.0	2.00	643	26.2	336.5	1.96
170	177	646	26.8	26.0	21.7	24.1	25.5	3.43	6.8	14.0	0.32	9.67	36.4	82	3.93	0.163	0.154	7.0	0.47	3468	3130	178	62	C	M	0.5568	359.7	2.04	645	26.0	352.2	1.99	634	26.3	344.1	1.95	623	26.5	336.9	1.91
175	182	625	27.2	26.4	21.9	24.3	25.7	3.48	6.8	14.0	0.32	9.93	36.3	82	4.00	0.165	0.156	7.0	0.47	3457	3130	175	62	C	M	0.5752	359.5	1.98	624	26.4	352.1	1.94	614	26.7	344.1	1.89	605	26.9	337.4	1.86
180	187	605	27.6	26.8	22.0	24.5	25.9	3.52	6.9	14.1	0.33	10.18	36.2	81	4.07	0.166	0.157	6.9	0.47	3447	3130	173	62	C	M	0.5932	358.9	1.92	605	26.8	351.6	1.88	596	27.1	343.7	1.84	587	27.3	337.3	1.81

Table A78. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 16 m Initial Density = 8000 stems/ha																																								
5	12	7845	1.4	1.3	2.2	2.9	3.0	0.70	1.5	0.5	0.72	0.39	1.3	181	1.13	0.394	0.374	1.1	0.02	1087	3271	63	30	B	M	0.0002	1.4	0.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	7489	2.9	2.7	3.5	4.6	4.9	0.80	2.0	1.3	0.60	0.51	4.9	138	1.16	0.252	0.237	2.9	0.05	1523	3271	117	38	B	M	0.0012	8.8	0.53	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	6984	4.2	3.9	4.9	6.3	6.7	0.92	2.4	2.2	0.51	0.68	9.5	128	1.20	0.191	0.178	4.7	0.11	1987	3271	166	47	B	M	0.0035	24.2	1.12	37	8.2	0.4	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	6394	5.4	5.0	6.1	7.8	8.4	1.04	2.6	3.2	0.44	0.87	14.4	124	1.25	0.160	0.148	6.2	0.17	2425	3271	207	56	C	M	0.0073	46.5	1.74	624	8.3	9.2	0.34	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	32	5777	6.5	6.1	7.3	9.3	10.0	1.15	2.8	4.1	0.40	1.09	19.1	121	1.32	0.142	0.131	7.5	0.23	2808	3271	238	63	C	M	0.0127	73.6	2.32	1669	8.7	32.7	1.03	16	12.7	0.9	0.03	0	0.0	0.0	0.00
30	37	5175	7.6	7.2	8.4	10.6	11.5	1.27	3.0	5.0	0.37	1.33	23.3	118	1.39	0.131	0.121	8.5	0.28	3124	3271	260	69	C	M	0.0199	103.0	2.81	2481	9.2	64.8	1.77	119	13.0	7.4	0.20	14	14.6	1.0	0.03
35	42	4615	8.6	8.2	9.5	11.8	12.8	1.39	3.2	5.8	0.35	1.58	26.9	116	1.47	0.125	0.115	9.2	0.33	3374	3271	274	73	D	M	0.0288	132.8	3.19	2897	9.8	99.1	2.38	363	13.3	25.8	0.62	82	14.8	6.5	0.16
40	47	4109	9.6	9.1	10.4	12.9	14.0	1.50	3.4	6.6	0.34	1.85	29.8	114	1.56	0.121	0.112	9.6	0.37	3564	3271	282	76	D	M	0.0393	161.6	3.46	3016	10.5	132.3	2.83	690	13.6	55.5	1.19	233	15.1	20.8	0.45
45	52	3662	10.6	10.1	11.3	13.9	15.0	1.60	3.6	7.3	0.32	2.13	32.1	112	1.65	0.119	0.110	9.9	0.40	3704	3271	285	78	D	M	0.0515	188.5	3.65	2959	11.2	163.1	3.16	1007	14.0	91.2	1.77	448	15.4	44.6	0.86
50	57	3271	11.5	11.0	12.2	14.8	16.0	1.71	3.7	7.9	0.32	2.42	34.0	111	1.75	0.118	0.109	10.0	0.42	3802	3271	285	79	D	M	0.0651	213.1	3.76	2811	11.9	190.8	3.37	1255	14.4	127.9	2.26	677	15.7	75.0	1.32
55	62	2931	12.4	11.9	12.9	15.6	16.9	1.81	3.9	8.5	0.31	2.72	35.4	109	1.85	0.118	0.109	10.1	0.44	3866	3271	283	80	D	M	0.0802	235.0	3.81	2625	12.6	215.2	3.49	1418	14.9	162.0	2.63	877	16.1	107.9	1.75
60	67	2638	13.3	12.7	13.6	16.4	17.7	1.91	4.1	9.1	0.31	3.03	36.5	107	1.95	0.119	0.110	10.0	0.46	3905	3271	279	80	D	M	0.0965	254.6	3.82	2430	13.3	236.8	3.55	1507	15.4	192.4	2.89	1031	16.5	140.3	2.10
65	72	2383	14.1	13.5	14.3	17.1	18.4	2.01	4.3	9.6	0.30	3.34	37.3	106	2.05	0.120	0.111	9.9	0.47	3925	3271	274	79	D	M	0.1139	271.5	3.79	2239	14.0	255.4	3.56	1536	15.9	218.3	3.05	1133	16.9	170.1	2.37
70	77	2164	14.9	14.3	14.9	17.7	19.1	2.10	4.4	10.1	0.30	3.65	37.9	104	2.15	0.122	0.113	9.8	0.48	3929	3271	268	79	D	M	0.1324	286.5	3.74	2063	14.8	271.6	3.54	1527	16.4	240.6	3.14	1192	17.4	196.8	2.57
75	82	1973	15.7	15.1	15.5	18.3	19.7	2.19	4.6	10.5	0.30	3.96	38.3	103	2.25	0.123	0.115	9.7	0.48	3922	3271	262	78	D	M	0.1516	299.2	3.66	1901	15.5	285.4	3.49	1490	16.9	259.1	3.17	1216	17.8	220.0	2.69
80	87	1807	16.5	15.8	16.0	18.8	20.2	2.28	4.7	10.9	0.30	4.28	38.5	102	2.35	0.125	0.116	9.5	0.49	3907	3271	256	77	D	M	0.1717	310.2	3.58	1754	16.2	297.3	3.43	1437	17.5	274.6	3.17	1215	18.3	239.9	2.77
85	92	1662	17.2	16.6	16.5	19.3	20.7	2.36	4.9	11.3	0.30	4.60	38.7	100	2.45	0.127	0.118	9.3	0.49	3887	3271	250	76	D	M	0.1922	319.5	3.49	1623	16.8	307.4	3.35	1377	18.0	287.6	3.14	1196	18.8	256.7	2.80
90	97	1535	17.9	17.3	17.0	19.8	21.2	2.44	5.0	11.6	0.30	4.92	38.7	99	2.55	0.129	0.120	9.1	0.49	3862	3271	244	75	D	M	0.2133	327.4	3.39	1506	17.5	315.9	3.27	1312	18.6	298.4	3.09	1165	19.3	270.9	2.80
95	102	1424	18.6	17.9	17.4	20.2	21.6	2.52	5.2	11.9	0.30	5.23	38.7	98	2.65	0.131	0.123	9.0	0.49	3835	3271	238	74	D	M	0.2348	334.3	3.29	1402	18.1	323.3	3.18	1249	19.1	307.6	3.03	1128	19.8	283.0	2.78
100	107	1326	19.3	18.6	17.8	20.6	22.0	2.59	5.3	12.2	0.30	5.54	38.7	97	2.75	0.134	0.125	8.8	0.49	3807	3271	232	74	D	M	0.2564	340.0	3.19	1309	18.8	329.4	3.09	1187	19.6	315.2	2.95	1087	20.3	293.1	2.75
105	112	1239	19.9	19.2	18.2	20.9	22.4	2.66	5.4	12.4	0.30	5.85	38.6	96	2.84	0.136	0.127	8.6	0.49	3778	3271	227	73	D	M	0.2782	344.7	3.09	1226	19.4	334.6	3.00	1127	20.2	321.4	2.88	1045	20.7	301.6	2.70
110	117	1161	20.5	19.8	18.6	21.3	22.7	2.73	5.5	12.6	0.30	6.16	38.4	94	2.93	0.138	0.129	8.5	0.49	3749	3271	222	72	D	M	0.3001	348.4	2.99	1151	20.0	338.7	2.90	1070	20.7	326.3	2.80	1002	21.2	308.5	2.64
115	122	1092	21.1	20.4	18.9	21.6	23.1	2.80	5.7	12.8	0.30	6.47	38.3	93	3.03	0.140	0.131	8.3	0.49	3721	3271	217	71	D	M	0.3220	351.6	2.89	1084	20.5	342.2	2.81	1018	21.2	330.6	2.72	961	21.7	314.4	2.58
120	127	1031	21.7	21.0	19.2	21.9	23.4	2.87	5.8	13.0	0.30	6.77	38.2	92	3.11	0.142	0.133	8.2	0.49	3693	3271	212	70	C	M	0.3438	354.5	2.80	1024	21.1	345.3	2.73	970	21.7	334.3	2.64	922	22.2	319.5	2.52
125	132	975	22.3	21.5	19.5	22.2	23.6	2.93	5.9	13.2	0.31	7.06	38.0	91	3.20	0.144	0.135	8.0	0.48	3666	3271	208	69	C	M	0.3654	356.3	2.71	970	21.6	347.4	2.64	924	22.2	337.0	2.56	884	22.6	323.4	2.46
130	137	925	22.8	22.1	19.8	22.5	23.9	2.99	6.0	13.3	0.31	7.36	37.8	90	3.29	0.146	0.137	7.9	0.48	3641	3271	204	68	C	M	0.3869	357.9	2.62	921	22.1	349.2	2.56	882	22.7	339.2	2.48	848	23.1	326.7	2.39
135	142	880	23.3	22.6	20.1	22.7	24.2	3.05	6.1	13.4	0.31	7.65	37.6	89	3.37	0.148	0.140	7.8	0.48	3617	3271	200	67	C	M	0.4082	359.2	2.54	876	22.7	350.7	2.48	844	23.1	341.0	2.41	815	23.5	329.5	2.33
140	147	839	23.8	23.1	20.3	22.9	24.4	3.11	6.2	13.6	0.31	7.93	37.5	88	3.45	0.151	0.142	7.7	0.48	3595	3271	197	67	C	M	0.4292	360.1	2.46	836	23.2	351.8	2.40	809	23.6	342.4	2.33	783	23.9	331.7	2.26
145	152	802	24.3	23.6	20.5	23.2	24.6	3.16	6.3	13.7	0.31	8.21	37.3	87	3.53	0.152	0.143	7.6	0.48	3574	3271	193	66	C	M	0.4499	360.8	2.38	800	23.6	352.6	2.32	776	24.0	343.5	2.26	754	24.4	333.5	2.20
150	157	769	24.8	24.1	20.8	23.4	24.8	3.21	6.4	13.7	0.31	8.49	37.2	86	3.61	0.154	0.145	7.5	0.48	3555	3271	190	65	C	M	0.4702	361.6	2.31	767	24.1	353.6	2.26	747	24.5	344.7	2.20	727	24.8	335.3	2.14
155	162	738	25.3	24.5	21.0	23.6	25.0	3.27	6.5	13.8	0.32	8.76	37.0	85	3.68	0.156	0.147	7.4	0.48	3537	3271	187	65	C	M	0.4901	361.7	2.24	736	24.6	353.8	2.19	719	24.9	345.2	2.14	702	25.2	336.4	2.08
160	167	709	25.7	25.0	21.2	23.8	25.2	3.32	6.6	13.9	0.32	9.03	36.9	85	3.76	0.158	0.149	7.3	0.47	3520	3271	184	64	C	M	0.5097	361.4	2.17	708	25.0	353.6	2.12	692	25.3	345.1	2.07	677	25.6	336.9	2.02
165	172	684	26.2	25.4	21.4	23.9	25.4	3.36	6.6	13.9	0.32	9.29	36.8	84	3.82	0.160	0.151	7.2	0.47	3505	3271	182	64	C	M	0.5289	361.8	2.11	683	25.4	354.1	2.06	669	25.7	345.7	2.01	656	26.0	338.0	1.97
170	177	660	26.6	25.8	21.6	24.1	25.5	3.41	6.7	14.0	0.32	9.55	36.7	83	3.89	0.161	0.152	7.1	0.47	3492	3271	180	63	C	M	0.5477	361.5	2.05	659	25.8	353.9	2.00	647	26.1	345.7	1.96	635	26.4	338.3	1.91
175	182	638	27.0	26.2	21.8	24.3	25.7	3.46	6.8	14.0	0.32	9.81	36.5	82	3.96	0.163	0.154	7.0	0.47	3480	3271	177	63	C	M	0.5660	361.1	1.99	637	26.2	353.7	1.95	627	26.5	345.6	1.90	616	26.7	338.6	1.86
180	187	618	27.4	26.6	21.9	24.4	25.9	3.50	6.9	14.1	0.32	10.06	36.5	81	4.02	0.165	0.156	7.0	0.47	3469	3271	175	62	C	M	0.5840	360.9	1.93	617	26.6	353.5	1.89	608	26.9	345.5	1.85	599	27.1	338.9	1.82
SI = 16 m Initial Density = 9000 stems/ha																																								
5	12	8816	1.4	1.3	2.2	2.9	3.0	0.70	1.5	0.6	0.72	0.38	1.3	186	1.07	0.372	0.353	1.1	0.02	1207	3545	69	34	B	M	0.0002	1.4	0.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	8395	2.8	2.6	3.5	4.6	4.9	0.80	1.9	1.3	0.59	0.50	5.1	140	1.09	0.238	0.224	3.1	0.06	1668	3545	127	42	B	M	0.0011	9.2	0.55	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	7800	4.0	3.8	4.8	6.3	6.7	0.91	2.3	2.2	0.50	0.66	10.0	130	1.13	0.181	0.169	5.0	0.12	2152	3545	179	52	C	M	0.0032	25.1	1.16	26	8.1	0.3	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	7110	5.2	4.9	6.1	7.8	8.4	1.02	2.5	3.2	0.44	0.85	15.1	125	1.19	0.152	0.141	6.6	0.18	2604	3545	222	60	C	M	0.0068	48.1	1.80	563	8.3	8.1	0.30	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	32	6393	6.3	6.0	7.2	9.3	10.0	1.14	2.7	4.1	0.39	1.05	20.0	122	1.25	0.135	0.125	8.0	0.24	2994	3545	254	67	C	M	0.0119	76.0	2.40	1653	8.6	31.2	0.99	11	12.7	0.6	0.02	0	0.0	0.0	0.00
30	37	5700	7.4	7.0	8.4	10.6	11.5	1.25	2.9	4.9	0.37	1.28	24.3	120	1.32	0.125	0.115	9.0	0.30	3312	3545	276	73	D	M	0.0186	106.2	2.90	2558	9.1	63.8	1.74	95	12.9	5.9	0.16	10	14.5	0.7	0.02
35	42	5060	8.4	8.0	9.4	11.8	12.8	1.36	3.1	5.8	0.35	1.53	28.0	117	1.41	0.119	0.110	9.7	0.34	3559	3545	290	77	D	M	0.0270	136.6	3.28	3045	9.7	99.2	2.38	320	13.2	22.4	0.54	64	14.8	5.0	0.12
40	47	4487	9.4	8.9	10.3	12.9	14.0	1.47	3.3	6.5	0.33	1.79	30.9	115	1.49	0.116	0.107	10.1	0.38	3744	3545	298	80	D	M	0.0370	165.9	3.55	3201	10.3	133.6	2.86	647	13.5	51.0	1.09	200	15.0	17.5	0.37
45	52	3983	10.3	9.8	11.2	13.9	15.0	1.58	3.5	7.2	0.32	2.06	33.3	113	1.58	0.114	0.105	10.4	0.41	3876	3545	300	82	D	M	0.0485	193.2	3.74	3155	11.0	165.2	3.20	980	13.9	86.8	1.68	409	15.3	39.9	0.77
50	57	3545	11.2	10.7	12.0	14.8	16.0	1.68	3.6	7.9	0.31	2.34	35.2	112	1.68	0.114	0.105	10.5	0.44	3966	3545	300	83	D	M	0.0615	218.0	3.85	3004	11.7	193.7	3.42	1252	14.3	124.3	2.19	643	15.6	69.6	1.23
55	62	3167	12.1	11.6	12.8	15.6	16.9	1.78	3.8	8.5	0.31	2.63	36.6	110	1.78	0.114	0.105	10.5	0.46	4023	3545	296	83	D	M	0.0758	240.2	3.89	2807	12.4	218.7	3.55	1440	14.7	159.8	2.59	857	16.0	102.7	1.67
60	67	2841	13.0	12.4	13.5	16.3	17.7	1.88	4.0	9.0	0.30	2.92	37.7	108	1.88	0.115	0.106	10.4	0.47	4053	3545	292	83	D	M	0.0914	259.8	3.90	2597	13.1	240.6	3.61	1546	15.2	191.3	2.87	1026	16.4	135.8	2.04
65	72	2561	13.8	13.2	14.2	17.0	18.4	1.97	4.1	9.5	0.30	3.22	38.4	107	1.98	0.116	0.107	10.3	0.48	4065	3545	286	83	D	M	0.1082	277.0	3.86	2392	13.8	259.6	3.62	1589	15.7	218.6	3.05	1144	16.8	166.8	2.33
70	77	2319	14.6	14.0	14.8	17.6	19.1	2.07	4.3	10.0	0.30	3.53	39.0	105	2.08	0.118	0.109	10.2	0.49	4061	3545	279	82	D	M	0.1258	291.8	3.81	2200	14.5	276.0	3.60	1587	16.2	241.6	3.15	1215	17.2	194.5	2.54
75	82	2110	15.4	14.8	15.3	18.2	19.7	2.15	4.5	10.4	0.30	3.84	39.3	104	2.18	0.119	0.111	10.0	0.50	4047	3545	273	81	D	M	0.1444	304.7	3.73	2025	15.2	290.0	3.55	1554	16.7	261.0	3.20	1248	17.7	218.6	2.68
80	87	1929	16.2	15.5	15.9	18.8	20.2	2.24	4.6	10.8	0.30	4.15	39.5	103	2.28	0.121	0.113	9.8	0.50	4026	3545	266	80	D	M	0.1637	315.7	3.64	1867	15.9	302.0	3.48	1504	17.3	277.2	3.20	1254	18.1	239.5	2.76
85	92	1771	16.9	16.2	16.3	19.2	20.7	2.32	4.8	11.2	0.30	4.46	39.6	101	2.38	0.123	0.115	9.6	0.50	3999	3545	259	79	D	M	0.1835	325.0	3.55	1725	16.5	312.2	3.41	1443	17.8	290.7	3.17	1239	18.6	257.1	2.80
90	97	1633	17.6	16.9	16.8	19.7	21.2	2.40	4.9	11.5	0.30	4.76	39.7	100	2.47	0.126	0.117	9.5	0.50	3968	3545	253	78	D	M	0.2039	332.9	3.44	1599	17.2	320.8	3.32	1377	18.3	301.8	3.12	1210	19.0	271.9	2.81
95	102	1512	18.3	17.6	17.2	20.1	21.6	2.48	5.0	11.8	0.30	5.07	39.6	99	2.57	0.128	0.119	9.3	0.50	3936	3545	246	77	D	M	0.2246	339.6	3.34	1486	17.8	328.1	3.23	1310	18.8	311.1	3.06	1174	19.5	284.5	2.80
100	107	1405	18.9	18.3	17.6	20.5	22.0	2.55	5.2	12.1	0.30	5.38	39.5	97	2.67	0.130	0.121	9.1	0.50	3902	3545	240	76	D	M	0.2456	345.1	3.24	1385	18.4	334.1	3.13	1245	19.4	318.8	2.99	1133	20.0	294.9	2.76
105	112	1311	19.6	18.9	18.0	20.9	22.4	2.62	5.3	12.3	0.30	5.68	39.4	96	2.76	0.132	0.123	8.9	0.50	3868	3545	234	75	D	M	0.2668	349.8	3.13	1295	19.0	339.2	3.04	1182	19.9	325.1	2.91	1090	20.5	303.8	2.72
110	117	1227	20.2	19.5	18.4	21.2	22.7	2.69	5.4	12.6	0.30	5.99	39.2	95	2.85	0.135	0.126	8.7	0.50	3835	3545	229	73	D	M	0.2881	353.5	3.03	1215	19.6	343.3	2.94	1123	20.4	330.3	2.83	1046	20.9	311.0	2.67
115	122	1152	20.8	20.1	18.7	21.5	23.1	2.76	5.6	12.8	0.30	6.28	39.0	94	2.95	0.137	0.128	8.6	0.50	3802	3545	223	72	D	M	0.3094	356.4	2.93	1142	20.2	346.6	2.85	1067	20.9	334.4	2.75	1003	21.4	316.9	2.60
120	127	1086	21.3	20.6	19.0	21.8	23.4	2.83	5.7	12.9	0.30	6.58	38.9	93	3.03	0.139	0.130	8.4	0.50	3770	3545	219	71	D	M	0.3307	359.1	2.83	1078	20.7	349.6	2.76	1016	21.4	338.1	2.67	962	21.9	322.2	2.54
125	132	1026	21.9	21.2	19.3	22.1	23.6	2.89	5.8	13.1	0.30	6.87	38.7	92	3.12	0.141	0.132	8.3	0.49	3740	3545	214	71	D	M	0.3519	361.0	2.74	1020	21.3	351.7	2.67	968	21.9	340.8	2.59	922	22.3	326.2	2.48
130	137	972	22.4	21.7	19.6	22.4	23.9	2.95	5.9	13.3	0.30	7.16	38.5	91	3.21	0.143	0.134	8.1	0.49	3711	3545	210	70	C	M	0.3728	362.4	2.65	967	21.8	353.4	2.59	923	22.4	342.9	2.51	884	22.8	329.5	2.41
135	142	924	23.0	22.2	19.9	22.6	24.2	3.01	6.0	13.4	0.31	7.45	38.3	90	3.29	0.145	0.136	8.0	0.49	3683	3545	206	69	C	M	0.3936	363.7	2.57	920	22.3	354.9	2.51	883	22.8	344.9	2.43	850	23.2	332.6	2.35
140	147	880	23.5	22.7	20.1	22.9	24.4	3.07	6.1	13.5	0.31	7.73	38.1	89	3.37	0.147	0.138	7.9	0.49	3658	3545	202	68	C	M	0.4142	364.5	2.49	877	22.8	355.9	2.43	845	23.3	346.2	2.36	816	23.6	334.7	2.28
145	152	840	24.0	23.2	20.4	23.1	24.6	3.12	6.2	13.6	0.31	8.00	37.9	88	3.45	0.149	0.140	7.7	0.49	3633	3545	198	67	C	M	0.4344	364.9	2.41	837	23.3	356.6	2.35	810	23.7	347.1	2.29	785	24.1	336.5	2.22
150	157	804	24.4	23.7	20.6	23.3	24.8	3.17	6.3	13.7	0.31	8.28	37.7	87	3.53	0.151	0.142	7.6	0.48	3611	3545	195	67	C	M	0.4545	365.4	2.33	802	23.7	357.1	2.28	778	24.2	348.0	2.22	757	24.5	338.1	2.16
155	162	771	24.9	24.2	20.8	23.5	25.0	3.23	6.4	13.8	0.31	8.55	37.6	86	3.60	0.153	0.144	7.5	0.48	3590	3545	192	66	C	M	0.4741	365.5	2.26	769	24.2	357.4	2.21	749	24.6	348.5	2.16	730	24.9	339.2	2.10
160	167	740	25.4	24.6	21.0	23.7	25.2	3.28	6.5	13.8	0.32	8.81	37.4	85	3.68	0.155	0.146	7.4	0.48	3571	3545	189	65	C	M	0.4934	365.1	2.19	738	24.6	357.1	2.14	721	25.0	348.4	2.09	704	25.3	339.7	2.04
165	172	713	25.8	25.0	21.2	23.9	25.4	3.32	6.6	13.9	0.32	9.07	37.3	84	3.75	0.157	0.148	7.3	0.48	3553	3545	186	65	C	M	0.5123	365.3	2.13	712	25.1	357.4	2.08	696	25.4	348.8	2.03	682	25.6	340.7	1.98
170	177	687	26.2	25.4	21.4	24.0	25.5	3.37	6.6	13.9	0.32	9.33	37.1	83	3.82	0.159	0.149	7.2	0.48	3537	3545	183	64	C	M	0.5307	364.6	2.06	686	25.5	356.9	2.02	672	25.8	348.5	1.97	659	26.0	340.7	1.93
175	182	664	26.6	25.9	21.6	24.2	25.7	3.42	6.7	14.0	0.32	9.58	37.0	83	3.88	0.160	0.151	7.2	0.48	3523	3545	181	64	C	M	0.5489	364.5	2.01	663	25.9	356.9	1.96	651	26.2	348.6	1.92	639	26.4	341.2	1.88
180	187	642	27.0	26.3	21.7	24.4	25.9	3.46	6.8	14.0	0.32	9.83	36.9	82	3.95	0.162	0.153	7.1	0.48	3510	3545	179	63	C	M	0.5667	363.8	1.95	641	26.3	356.3	1.91	631	26.5	348.1	1.86	620	26.8	341.1	1.83

Table A79. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

SI = 16 m   Initial Density = 10000 stems/ha

Bh age	Total age	Util. std. 0/0 (total volume): N	D_q	D	H	H_{LX}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	Util. std. 8/6: N	D	V/ha	Mai	Util. std. 13/7: N	D	V/ha	Mai	Util. std 15/10: N	D	V/ha	Mai
5	12	9787	1.3	1.2	2.2	2.9	3.0	0.69	1.4	0.6	0.71	0.38	1.4	191	1.01	0.354	0.335	1.2	0.02	1326	3811	74	37	B	M	0.0002	1.5	0.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	9298	2.7	2.5	3.5	4.6	4.9	0.79	1.9	1.3	0.58	0.49	5.4	143	1.04	0.227	0.213	3.3	0.06	1809	3811	136	46	B	M	0.0010	9.5	0.57	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	8610	3.9	3.7	4.8	6.2	6.7	0.90	2.2	2.2	0.49	0.65	10.5	132	1.08	0.173	0.161	5.3	0.12	2312	3811	191	56	C	M	0.0030	25.9	1.20	18	8.1	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	7817	5.1	4.8	6.0	7.8	8.4	1.01	2.5	3.1	0.43	0.82	15.8	127	1.13	0.145	0.134	7.0	0.19	2776	3811	236	64	C	M	0.0063	49.6	1.86	506	8.2	7.1	0.27	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	32	6999	6.2	5.8	7.2	9.3	10.0	1.12	2.7	4.1	0.39	1.02	20.8	123	1.20	0.129	0.119	8.4	0.25	3171	3811	269	72	D	M	0.0112	78.2	2.47	1623	8.6	29.6	0.93	7	12.6	0.4	0.01	0	0.0	0.0	0.00
30	37	6214	7.2	6.8	8.3	10.6	11.5	1.23	2.9	4.9	0.36	1.24	25.3	121	1.27	0.120	0.111	9.4	0.31	3489	3811	292	77	D	M	0.0175	109.0	2.97	2614	9.0	62.7	1.71	76	12.9	4.6	0.13	7	14.4	0.5	0.01
35	42	5494	8.2	7.8	9.3	11.8	12.8	1.34	3.0	5.7	0.34	1.48	29.0	118	1.35	0.115	0.106	10.1	0.36	3733	3811	306	81	D	M	0.0255	139.9	3.36	3172	9.6	99.0	2.38	281	13.1	19.4	0.47	50	14.7	3.9	0.09
40	47	4854	9.2	8.7	10.2	12.9	14.0	1.45	3.2	6.5	0.33	1.73	32.0	116	1.44	0.112	0.103	10.6	0.40	3912	3811	313	84	D	M	0.0350	169.7	3.64	3368	10.2	134.3	2.88	603	13.4	46.7	1.00	171	14.9	14.8	0.32
45	52	4294	10.1	9.6	11.1	13.8	15.0	1.55	3.4	7.2	0.32	1.99	34.4	114	1.53	0.110	0.102	10.8	0.43	4037	3811	315	85	D	M	0.0459	197.3	3.82	3336	10.8	166.9	3.23	949	13.8	82.3	1.59	371	15.2	35.6	0.69
50	57	3811	11.0	10.5	11.9	14.7	16.0	1.65	3.6	7.8	0.31	2.26	36.3	112	1.62	0.110	0.101	10.9	0.45	4119	3811	313	86	D	M	0.0584	222.4	3.92	3185	11.5	196.0	3.46	1242	14.2	120.5	2.13	607	15.5	64.4	1.14
55	62	3395	11.9	11.4	12.7	15.5	16.9	1.75	3.7	8.4	0.30	2.55	37.7	111	1.72	0.110	0.102	10.9	0.47	4167	3811	309	86	D	M	0.0721	244.7	3.97	2978	12.2	221.6	3.59	1451	14.6	157.0	2.55	832	15.9	97.5	1.58
60	67	3039	12.7	12.2	13.4	16.3	17.7	1.85	3.9	9.0	0.30	2.83	38.7	109	1.81	0.111	0.103	10.8	0.49	4190	3811	304	86	D	M	0.0870	264.5	3.97	2757	12.9	244.0	3.66	1577	15.1	189.8	2.85	1016	16.2	131.2	1.97
65	72	2733	13.6	13.0	14.0	17.0	18.4	1.94	4.1	9.5	0.30	3.13	39.4	108	1.91	0.113	0.104	10.7	0.50	4194	3811	297	85	D	M	0.1031	281.7	3.93	2538	13.6	263.2	3.67	1634	15.5	218.2	3.04	1148	16.6	163.0	2.27
70	77	2469	14.4	13.8	14.6	17.6	19.1	2.03	4.2	9.9	0.29	3.42	39.9	106	2.01	0.114	0.106	10.5	0.50	4184	3811	290	85	D	M	0.1201	296.6	3.87	2332	14.2	279.7	3.65	1640	16.0	242.1	3.16	1231	17.1	191.6	2.50
75	82	2242	15.1	14.5	15.2	18.2	19.7	2.12	4.4	10.4	0.29	3.72	40.3	105	2.11	0.116	0.107	10.4	0.51	4163	3811	282	83	D	M	0.1380	309.4	3.79	2144	14.9	293.9	3.60	1612	16.5	262.2	3.21	1274	17.5	216.8	2.65
80	87	2046	15.9	15.3	15.7	18.7	20.2	2.21	4.5	10.8	0.29	4.03	40.5	103	2.21	0.118	0.109	10.2	0.51	4135	3811	275	82	D	M	0.1566	320.4	3.70	1975	15.6	306.0	3.53	1564	17.0	279.0	3.22	1286	17.9	238.4	2.75
85	92	1875	16.6	16.0	16.2	19.2	20.7	2.29	4.7	11.1	0.29	4.33	40.5	102	2.31	0.120	0.111	9.9	0.51	4103	3811	268	81	D	M	0.1758	329.6	3.60	1822	16.3	316.1	3.45	1502	17.6	292.8	3.19	1276	18.4	256.8	2.80
90	97	1726	17.3	16.6	16.6	19.6	21.2	2.37	4.8	11.4	0.29	4.63	40.5	101	2.41	0.123	0.114	9.7	0.51	4067	3811	261	80	D	M	0.1955	337.4	3.49	1687	16.9	324.8	3.36	1436	18.1	304.4	3.15	1250	18.8	272.2	2.82
95	102	1596	18.0	17.3	17.1	20.1	21.6	2.44	5.0	11.7	0.29	4.93	40.4	99	2.50	0.125	0.116	9.5	0.51	4029	3811	254	79	D	M	0.2156	344.1	3.38	1566	17.5	332.1	3.27	1367	18.6	313.9	3.09	1215	19.3	285.3	2.81
100	107	1481	18.6	17.9	17.5	20.5	22.0	2.52	5.1	12.0	0.29	5.23	40.3	98	2.60	0.127	0.118	9.3	0.51	3990	3811	247	77	D	M	0.2360	349.5	3.28	1458	18.1	338.1	3.17	1299	19.1	321.7	3.02	1174	19.8	296.1	2.78
105	112	1380	19.2	18.6	17.8	20.8	22.4	2.59	5.2	12.3	0.30	5.53	40.1	97	2.69	0.129	0.120	9.1	0.51	3952	3811	241	76	D	M	0.2566	354.1	3.17	1362	18.7	343.1	3.07	1234	19.6	328.2	2.94	1131	20.2	305.3	2.73
110	117	1290	19.9	19.2	18.2	21.2	22.7	2.66	5.4	12.5	0.30	5.83	39.9	96	2.78	0.132	0.122	9.0	0.51	3914	3811	235	75	D	M	0.2773	357.7	3.07	1276	19.3	347.2	2.98	1172	20.1	333.5	2.86	1086	20.7	312.8	2.68
115	122	1210	20.4	19.8	18.5	21.5	23.1	2.72	5.5	12.7	0.30	6.12	39.7	95	2.87	0.134	0.125	8.8	0.51	3877	3811	230	74	D	M	0.2981	360.7	2.96	1199	19.9	350.5	2.88	1114	20.6	337.8	2.78	1042	21.1	319.0	2.62
120	127	1139	21.0	20.3	18.8	21.8	23.4	2.79	5.6	12.9	0.30	6.41	39.5	94	2.96	0.136	0.127	8.6	0.50	3841	3811	225	73	D	M	0.3189	363.2	2.87	1130	20.4	353.4	2.79	1060	21.1	341.4	2.70	999	21.6	324.3	2.56
125	132	1075	21.6	20.9	19.1	22.1	23.6	2.85	5.7	13.0	0.30	6.70	39.3	93	3.05	0.138	0.129	8.5	0.50	3807	3811	220	72	D	M	0.3395	365.0	2.77	1068	21.0	355.5	2.70	1009	21.6	344.1	2.61	958	22.0	328.5	2.49
130	137	1018	22.1	21.4	19.4	22.3	23.9	2.91	5.8	13.2	0.30	6.98	39.1	92	3.13	0.140	0.131	8.3	0.50	3775	3811	215	71	D	M	0.3601	366.6	2.68	1012	21.5	357.3	2.61	963	22.1	346.5	2.54	919	22.5	332.2	2.43
135	142	966	22.6	21.9	19.7	22.6	24.2	2.97	5.9	13.3	0.30	7.26	38.9	91	3.22	0.143	0.133	8.2	0.50	3744	3811	211	70	D	M	0.3804	367.5	2.59	961	22.0	358.5	2.53	920	22.5	348.1	2.46	882	22.9	334.9	2.36
140	147	919	23.1	22.4	19.9	22.8	24.4	3.03	6.0	13.4	0.31	7.54	38.7	90	3.30	0.145	0.135	8.0	0.50	3715	3811	207	69	C	M	0.4007	368.2	2.51	915	22.5	359.4	2.45	880	23.0	349.4	2.38	848	23.3	337.2	2.30
145	152	876	23.6	22.9	20.2	23.0	24.6	3.08	6.1	13.5	0.31	7.81	38.4	89	3.38	0.147	0.137	7.9	0.49	3688	3811	203	68	C	M	0.4205	368.4	2.43	873	22.9	359.8	2.37	842	23.4	350.1	2.31	815	23.8	338.8	2.23
150	157	838	24.1	23.4	20.4	23.2	24.8	3.14	6.2	13.6	0.31	8.08	38.3	88	3.45	0.149	0.139	7.8	0.49	3663	3811	199	68	C	M	0.4402	368.9	2.35	835	23.4	360.4	2.30	809	23.8	351.0	2.24	785	24.2	340.5	2.17
155	162	802	24.6	23.8	20.6	23.4	25.0	3.19	6.3	13.7	0.31	8.35	38.0	87	3.53	0.151	0.141	7.7	0.49	3640	3811	196	67	C	M	0.4595	368.5	2.28	800	23.9	360.3	2.23	777	24.3	351.1	2.17	756	24.6	341.2	2.11
160	167	770	25.0	24.3	20.8	23.6	25.2	3.24	6.4	13.8	0.31	8.61	37.9	86	3.60	0.153	0.143	7.6	0.49	3618	3811	193	66	C	M	0.4784	368.4	2.21	768	24.3	360.3	2.16	748	24.7	351.3	2.11	730	25.0	342.1	2.05
165	172	741	25.5	24.7	21.0	23.8	25.4	3.29	6.5	13.8	0.32	8.87	37.7	85	3.67	0.154	0.145	7.5	0.48	3598	3811	190	66	C	M	0.4972	368.4	2.15	739	24.7	360.4	2.10	722	25.1	351.6	2.05	706	25.4	342.9	2.00
170	177	713	25.9	25.1	21.2	24.0	25.5	3.33	6.6	13.9	0.32	9.12	37.5	84	3.75	0.156	0.147	7.4	0.48	3580	3811	187	65	C	M	0.5154	367.5	2.08	712	25.1	359.6	2.04	697	25.5	351.0	1.99	682	25.7	342.8	1.94
175	182	688	26.3	25.5	21.4	24.1	25.7	3.38	6.6	13.9	0.32	9.37	37.4	83	3.81	0.158	0.148	7.3	0.48	3563	3811	184	64	C	M	0.5333	366.9	2.02	687	25.5	359.2	1.98	673	25.9	350.7	1.93	661	26.1	343.0	1.89
180	187	665	26.7	25.9	21.5	24.3	25.9	3.42	6.7	14.0	0.32	9.62	37.2	82	3.88	0.160	0.150	7.2	0.48	3547	3811	182	64	C	M	0.5508	366.3	1.96	664	25.9	358.7	1.92	652	26.2	350.3	1.88	641	26.5	343.0	1.84

SI = 16 m   Initial Density = 15000 stems/ha

Bh age	Total age	Util. std. 0/0 (total volume): N	D_q	D	H	H_{LX}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	Util. std. 8/6: N	D	V/ha	Mai	Util. std. 13/7: N	D	V/ha	Mai	Util. std 15/10: N	D	V/ha	Mai
5	12	14625	1.2	1.1	2.1	2.8	3.0	0.69	1.3	0.6	0.68	0.37	1.6	213	0.83	0.290	0.274	1.5	0.02	1905	5047	101	54	C	M	0.0001	1.6	0.14	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	13769	2.4	2.3	3.4	4.5	4.9	0.77	1.7	1.3	0.55	0.46	6.3	153	0.85	0.187	0.175	4.1	0.08	2481	5047	179	64	C	M	0.0008	10.7	0.64	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	12584	3.5	3.3	4.6	6.2	6.7	0.86	2.0	2.2	0.46	0.59	12.3	140	0.89	0.144	0.133	6.6	0.15	3051	5047	247	74	D	M	0.0023	29.0	1.34	3	8.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	11249	4.6	4.3	5.8	7.8	8.4	0.96	2.2	3.1	0.41	0.74	18.5	133	0.94	0.122	0.112	8.6	0.23	3551	5047	300	83	D	M	0.0049	55.2	2.07	261	8.1	3.4	0.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	32	9910	5.6	5.3	6.9	9.2	10.0	1.06	2.4	4.0	0.37	0.91	24.2	129	1.00	0.109	0.100	10.2	0.30	3955	5047	337	90	D	M	0.0087	86.3	2.72	1408	8.3	22.3	0.70	1	12.5	0.1	0.00	0	0.0	0.0	0.00
30	37	8661	6.5	6.2	7.9	10.5	11.5	1.16	2.6	4.8	0.34	1.10	29.1	126	1.07	0.102	0.094	11.4	0.36	4260	5047	360	95	D	M	0.0138	119.3	3.25	2620	8.7	54.8	1.49	23	12.7	1.4	0.04	1	14.4	0.1	0.00
35	42	7546	7.5	7.1	8.9	11.7	12.8	1.26	2.7	5.5	0.32	1.30	33.1	123	1.15	0.099	0.090	12.1	0.42	4478	5047	372	98	D	M	0.0202	152.2	3.65	3593	9.1	94.7	2.27	138	12.9	9.1	0.22	14	14.5	1.1	0.03
40	47	6577	8.4	7.9	9.8	12.7	14.0	1.36	2.9	6.3	0.31	1.52	36.2	120	1.23	0.097	0.088	12.5	0.46	4623	5047	377	100	D	M	0.0279	183.3	3.93	3983	9.6	133.6	2.86	393	13.2	28.8	0.62	75	14.7	6.2	0.13
45	52	5749	9.3	8.8	10.6	13.7	15.0	1.46	3.1	6.9	0.30	1.75	38.7	118	1.32	0.096	0.088	12.7	0.49	4712	5047	376	101	D	M	0.0369	212.0	4.10	4048	10.2	169.6	3.28	740	13.5	60.1	1.16	215	15.0	19.5	0.38
50	57	5047	10.1	9.6	11.4	14.6	16.0	1.55	3.2	7.5	0.30	1.99	40.5	116	1.41	0.096	0.088	12.7	0.51	4756	5047	371	101	D	M	0.0471	237.9	4.20	3922	10.8	201.6	3.56	1142	13.7	101.2	1.79	424	15.2	42.3	0.75
55	62	4452	10.9	10.4	12.1	15.4	16.9	1.65	3.4	8.1	0.29	2.24	41.8	114	1.50	0.097	0.089	12.7	0.53	4768	5047	363	100	D	M	0.0586	260.8	4.23	3700	11.4	229.6	3.72	1438	14.1	140.8	2.28	665	15.5	72.4	1.17
60	67	3950	11.7	11.2	12.8	16.1	17.7	1.74	3.5	8.6	0.29	2.50	42.8	112	1.59	0.099	0.090	12.5	0.54	4757	5047	354	99	D	M	0.0711	280.8	4.21	3438	12.1	253.6	3.80	1647	14.5	177.8	2.67	929	15.8	108.6	1.63
65	72	3524	12.5	12.0	13.4	16.8	18.4	1.83	3.7	9.1	0.28	2.76	43.4	111	1.68	0.100	0.092	12.3	0.55	4728	5047	344	97	D	M	0.0846	298.3	4.16	3169	12.7	274.2	3.83	1770	14.9	210.5	2.94	1117	16.1	142.7	1.99
70	77	3161	13.3	12.7	14.0	17.4	19.1	1.91	3.9	9.6	0.28	3.03	43.8	109	1.78	0.102	0.093	12.0	0.56	4687	5047	334	96	D	M	0.0991	313.3	4.09	2914	13.3	291.8	3.81	1826	15.3	238.5	3.11	1255	16.5	174.7	2.28
75	82	2851	14.0	13.4	14.5	18.0	19.7	2.00	4.0	10.0	0.28	3.30	44.0	108	1.87	0.104	0.095	11.8	0.56	4637	5047	324	94	D	M	0.1144	326.1	3.99	2673	14.0	306.6	3.75	1828	15.8	262.1	3.21	1343	16.8	203.4	2.49
80	87	2585	14.7	14.1	15.1	18.5	20.2	2.08	4.2	10.4	0.28	3.57	44.0	106	1.97	0.106	0.097	11.5	0.56	4583	5047	314	92	D	M	0.1304	337.0	3.89	2455	14.6	319.2	3.68	1798	16.2	281.6	3.25	1391	17.2	228.5	2.64
85	92	2356	15.4	14.8	15.5	19.0	20.7	2.16	4.3	10.8	0.28	3.84	44.0	105	2.06	0.109	0.099	11.2	0.56	4525	5047	305	91	D	M	0.1469	346.1	3.78	2259	15.2	329.7	3.60	1744	16.7	297.7	3.25	1406	17.6	250.1	2.73
90	97	2157	16.1	15.5	16.0	19.4	21.2	2.23	4.5	11.1	0.28	4.12	43.8	103	2.15	0.111	0.102	10.9	0.56	4466	5047	296	89	D	M	0.1640	353.8	3.66	2086	15.8	338.5	3.50	1680	17.2	310.9	3.22	1400	18.0	268.4	2.78
95	102	1984	16.7	16.1	16.4	19.8	21.6	2.31	4.6	11.4	0.28	4.39	43.6	102	2.25	0.113	0.104	10.7	0.56	4407	5047	287	87	D	M	0.1816	360.2	3.54	1930	16.4	345.9	3.40	1608	17.7	321.8	3.17	1376	18.5	283.8	2.79
100	107	1832	17.4	16.7	16.8	20.2	22.0	2.38	4.7	11.7	0.28	4.67	43.4	101	2.34	0.115	0.106	10.4	0.55	4348	5047	278	85	D	M	0.1995	365.4	3.43	1790	17.0	351.9	3.30	1532	18.1	330.6	3.10	1339	18.9	296.7	2.78
105	112	1698	18.0	17.3	17.1	20.6	22.4	2.45	4.9	11.9	0.29	4.94	43.1	100	2.43	0.118	0.108	10.2	0.55	4291	5047	271	84	D	M	0.2177	369.7	3.31	1666	17.5	356.9	3.20	1458	18.6	337.8	3.02	1298	19.3	307.4	2.75
110	117	1581	18.6	17.9	17.5	20.9	22.7	2.51	5.0	12.2	0.29	5.21	42.8	98	2.51	0.120	0.111	9.9	0.55	4235	5047	263	82	D	M	0.2359	373.0	3.20	1553	18.1	360.9	3.09	1385	19.1	343.6	2.95	1252	19.7	316.3	2.71
115	122	1476	19.1	18.5	17.8	21.2	23.1	2.58	5.1	12.4	0.29	5.48	42.5	97	2.60	0.123	0.113	9.7	0.54	4182	5047	256	81	D	M	0.2545	375.7	3.09	1455	18.6	364.0	2.99	1317	19.5	348.2	2.86	1206	20.1	323.6	2.66
120	127	1383	19.7	19.0	18.1	21.5	23.4	2.64	5.2	12.6	0.29	5.75	42.1	96	2.69	0.125	0.115	9.5	0.54	4130	5047	250	80	D	M	0.2731	377.7	2.98	1366	19.2	366.5	2.89	1252	20.0	351.9	2.78	1158	20.6	329.6	2.60
125	132	1300	20.2	19.5	18.4	21.8	23.6	2.70	5.3	12.7	0.29	6.02	41.8	95	2.77	0.127	0.117	9.3	0.53	4081	5047	243	78	D	M	0.2917	379.2	2.88	1288	19.7	368.4	2.80	1193	20.4	354.7	2.69	1113	21.0	334.5	2.54
130	137	1225	20.8	20.1	18.6	22.1	23.9	2.76	5.5	12.9	0.29	6.28	41.5	94	2.86	0.129	0.119	9.1	0.53	4034	5047	238	77	D	M	0.3104	380.2	2.78	1215	20.2	369.8	2.71	1135	20.9	356.9	2.61	1067	21.4	338.4	2.48
135	142	1158	21.3	20.6	18.9	22.3	24.2	2.82	5.6	13.0	0.30	6.54	41.2	93	2.94	0.132	0.122	8.9	0.53	3990	5047	232	76	D	M	0.3288	380.8	2.69	1150	20.7	370.7	2.62	1083	21.3	358.6	2.53	1025	21.8	341.6	2.41
140	147	1098	21.8	21.0	19.1	22.5	24.4	2.87	5.7	13.2	0.30	6.80	40.9	92	3.02	0.134	0.124	8.8	0.52	3949	5047	227	75	D	M	0.3471	381.1	2.60	1090	21.2	371.3	2.53	1033	21.8	359.7	2.45	983	22.2	344.1	2.35
145	152	1043	22.3	21.5	19.4	22.8	24.6	2.93	5.8	13.3	0.30	7.06	40.6	91	3.10	0.136	0.126	8.6	0.52	3909	5047	222	74	D	M	0.3653	381.0	2.51	1039	21.6	371.5	2.45	990	22.2	360.4	2.38	946	22.6	346.0	2.28
150	157	993	22.7	22.0	19.6	23.0	24.8	2.98	5.9	13.4	0.30	7.31	40.3	90	3.17	0.138	0.128	8.4	0.51	3872	5047	218	73	D	M	0.3835	380.8	2.43	986	22.1	371.5	2.37	945	22.6	360.8	2.30	907	23.0	347.5	2.22
155	162	948	23.2	22.4	19.8	23.2	25.0	3.03	6.0	13.4	0.30	7.56	40.0	89	3.25	0.140	0.130	8.3	0.51	3838	5047	214	72	D	M	0.4012	380.3	2.35	942	22.5	371.2	2.30	906	23.0	360.9	2.23	874	23.4	348.5	2.16
160	167	906	23.6	22.9	20.0	23.4	25.2	3.08	6.0	13.5	0.31	7.81	39.7	88	3.32	0.142	0.132	8.2	0.51	3805	5047	210	71	D	M	0.4190	379.6	2.28	902	22.9	370.8	2.22	871	23.4	360.8	2.16	843	23.8	349.2	2.10
165	172	869	24.1	23.3	20.2	23.5	25.4	3.13	6.1	13.6	0.31	8.05	39.5	87	3.39	0.144	0.134	8.0	0.50	3775	5047	206	70	C	M	0.4359	378.8	2.21	863	23.4	370.2	2.16	837	23.8	360.4	2.10	812	24.1	349.6	2.04
170	177	834	24.5	23.7	20.4	23.7	25.5	3.18	6.2	13.6	0.31	8.29	39.2	86	3.46	0.146	0.136	7.9	0.50	3747	5047	202	69	C	M	0.4531	377.9	2.14	830	23.8	369.4	2.09	805	24.2	359.9	2.04	783	24.5	349.8	1.98
175	182	802	24.9	24.1	20.5	23.9	25.7	3.22	6.3	13.7	0.31	8.53	39.0	85	3.53	0.148	0.137	7.8	0.50	3721	5047	199	68	C	M	0.4700	376.9	2.07	802	24.2	368.5	2.03	781	24.6	359.3	1.98	759	24.9	349.6	1.92
180	187	772	25.3	24.5	20.7	24.0	25.9	3.27	6.4	13.7	0.31	8.77	38.8	85	3.60	0.150	0.139	7.7	0.50	3697	5047	196	68	C	M	0.4868	375.8	2.01	771	24.6	367.6	1.97	751	24.9	358.5	1.92	733	25.2	349.4	1.87

Table A80. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Util. std. = 0/0 (total volume): N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	Util. std. = 8/6: N	D	V/ha	Mai	Util. std. = 13/7: N	D	V/ha	Mai	Util. std = 15/10: N	D	V/ha	Mai
SI = 16 m Initial Density = 20000 stems/ha																																								
5	12	19447	1.1	1.0	2.1	2.8	3.0	0.68	1.3	0.6	0.66	0.36	1.7	230	0.72	0.253	0.238	1.7	0.02	2468	6177	125	71	D	M	0.0001	1.7	0.15	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	18187	2.2	2.1	3.3	4.5	4.9	0.75	1.6	1.3	0.53	0.45	7.0	161	0.74	0.164	0.152	4.7	0.09	3113	6177	217	81	D	M	0.0006	11.5	0.69	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	16464	3.3	3.1	4.5	6.2	6.7	0.84	1.8	2.2	0.45	0.56	13.7	145	0.78	0.126	0.116	7.6	0.17	3723	6177	295	92	D	M	0.0019	31.2	1.44	1	7.9	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	14556	4.2	4.0	5.6	7.7	8.4	0.93	2.0	3.0	0.39	0.69	20.5	138	0.83	0.107	0.098	10.0	0.26	4235	6177	354	100	D	M	0.0041	59.0	2.21	134	8.0	1.6	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	32	12680	5.2	4.9	6.7	9.1	10.0	1.02	2.2	3.9	0.35	0.84	26.7	133	0.89	0.097	0.089	11.7	0.34	4627	6177	393	107	D	M	0.0072	91.7	2.90	1110	8.1	16.2	0.51	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	37	10963	6.1	5.7	7.7	10.4	11.5	1.11	2.4	4.7	0.33	1.01	31.9	129	0.96	0.092	0.083	12.9	0.40	4907	6177	417	111	D	M	0.0115	126.1	3.44	2460	8.5	46.5	1.27	7	12.6	0.4	0.01	0	0.0	0.0	0.00
35	42	9457	7.0	6.6	8.6	11.6	12.8	1.21	2.5	5.4	0.31	1.19	36.1	126	1.03	0.089	0.080	13.7	0.46	5091	6177	427	113	D	M	0.0169	160.0	3.84	3732	8.8	87.6	2.10	67	12.8	4.3	0.10	4	14.4	0.3	0.01
40	47	8171	7.8	7.4	9.5	12.7	14.0	1.30	2.7	6.1	0.30	1.39	39.4	123	1.11	0.087	0.079	14.1	0.50	5200	6177	429	114	D	M	0.0235	192.0	4.11	4349	9.3	128.8	2.76	250	13.0	17.6	0.38	33	14.6	2.6	0.06
45	52	7086	8.7	8.2	10.3	13.6	15.0	1.39	2.8	6.7	0.29	1.60	41.8	121	1.19	0.087	0.079	14.2	0.54	5252	6177	425	113	D	M	0.0312	221.2	4.28	4552	9.8	167.5	3.24	559	13.3	43.4	0.84	123	14.8	10.7	0.21
50	57	6177	9.5	9.0	11.0	14.5	16.0	1.48	3.0	7.3	0.29	1.82	43.6	118	1.27	0.088	0.080	14.2	0.56	5262	6177	417	112	D	M	0.0401	247.4	4.37	4491	10.4	201.8	3.56	978	13.5	81.8	1.44	291	15.0	27.6	0.49
55	62	5416	10.3	9.8	11.7	15.3	16.9	1.57	3.2	7.9	0.28	2.04	44.9	116	1.36	0.089	0.081	14.0	0.58	5242	6177	406	111	D	M	0.0499	270.5	4.39	4281	10.9	231.7	3.76	1328	13.8	121.9	1.98	516	15.3	53.2	0.86
60	67	4778	11.0	10.5	12.4	16.0	17.7	1.66	3.3	8.4	0.28	2.28	45.8	115	1.45	0.090	0.082	13.8	0.59	5200	6177	395	109	D	M	0.0609	290.8	4.36	4003	11.5	257.2	3.86	1605	14.1	161.2	2.42	794	15.5	87.3	1.31
65	72	4241	11.8	11.3	13.0	16.7	18.4	1.74	3.5	8.9	0.28	2.52	46.3	113	1.54	0.092	0.083	13.5	0.59	5144	6177	382	107	D	M	0.0727	308.3	4.30	3703	12.1	279.0	3.89	1792	14.5	197.2	2.75	1017	15.8	121.3	1.69
70	77	3788	12.5	12.0	13.5	17.3	19.1	1.83	3.6	9.3	0.28	2.76	46.6	111	1.62	0.094	0.085	13.2	0.60	5078	6177	370	105	D	M	0.0853	323.3	4.22	3407	12.7	297.4	3.88	1901	14.9	228.5	2.98	1197	16.1	154.8	2.02
75	82	3402	13.2	12.7	14.0	17.8	19.7	1.91	3.8	9.7	0.28	3.01	46.7	110	1.71	0.096	0.087	12.8	0.60	5005	6177	358	102	D	M	0.0988	336.1	4.12	3129	13.3	312.9	3.83	1946	15.3	255.1	3.12	1329	16.4	185.9	2.28
80	87	3072	13.9	13.3	14.5	18.3	20.2	1.98	3.9	10.1	0.28	3.26	46.7	108	1.80	0.098	0.089	12.5	0.60	4930	6177	346	100	D	M	0.1129	346.9	4.00	2874	13.9	326.0	3.76	1944	15.7	277.3	3.20	1415	16.8	213.7	2.47
85	92	2789	14.6	14.0	15.0	18.8	20.7	2.06	4.1	10.5	0.28	3.51	46.5	107	1.89	0.101	0.091	12.2	0.60	4853	6177	334	98	D	M	0.1276	356.0	3.88	2645	14.4	336.9	3.68	1911	16.1	295.7	3.23	1463	17.1	238.0	2.60
90	97	2545	15.2	14.6	15.4	19.3	21.2	2.13	4.2	10.8	0.28	3.76	46.3	105	1.98	0.103	0.094	11.9	0.59	4776	6177	323	96	D	M	0.1429	363.6	3.76	2435	15.0	345.9	3.58	1853	16.6	310.7	3.21	1477	17.5	258.8	2.68
95	102	2333	15.8	15.2	15.8	19.7	21.6	2.20	4.3	11.1	0.28	4.02	46.0	104	2.07	0.105	0.096	11.6	0.59	4700	6177	313	94	D	M	0.1586	369.9	3.64	2249	15.6	353.5	3.48	1785	17.0	323.0	3.18	1470	17.9	276.5	2.72
100	107	2147	16.4	15.8	16.2	20.1	22.0	2.27	4.5	11.4	0.28	4.27	45.6	103	2.16	0.108	0.098	11.3	0.58	4625	6177	303	92	D	M	0.1747	375.0	3.52	2082	16.1	359.6	3.37	1710	17.4	333.0	3.12	1447	18.3	291.3	2.73
105	112	1985	17.0	16.4	16.5	20.4	22.4	2.34	4.6	11.6	0.28	4.52	45.3	102	2.24	0.110	0.100	11.0	0.58	4553	6177	294	90	D	M	0.1910	379.1	3.39	1935	16.7	364.6	3.26	1634	17.9	341.1	3.05	1414	18.7	303.7	2.72
110	117	1842	17.6	17.0	16.9	20.7	22.7	2.40	4.7	11.9	0.28	4.78	44.9	100	2.33	0.112	0.102	10.7	0.57	4484	6177	285	88	D	M	0.2075	382.3	3.28	1803	17.2	368.6	3.16	1557	18.3	347.5	2.98	1372	19.1	313.9	2.69
115	122	1715	18.2	17.5	17.2	21.0	23.1	2.47	4.8	12.1	0.28	5.03	44.5	99	2.41	0.115	0.105	10.4	0.57	4418	6177	277	86	D	M	0.2244	384.8	3.16	1684	17.7	371.8	3.06	1482	18.8	352.7	2.90	1327	19.4	322.4	2.65
120	127	1602	18.7	18.0	17.5	21.3	23.4	2.53	5.0	12.3	0.28	5.28	44.1	98	2.50	0.117	0.107	10.2	0.56	4354	6177	270	85	D	M	0.2413	386.6	3.05	1577	18.2	374.2	2.95	1411	19.2	356.8	2.82	1279	19.8	329.4	2.60
125	132	1502	19.2	18.6	17.7	21.6	23.6	2.59	5.1	12.4	0.29	5.53	43.7	97	2.58	0.119	0.109	10.0	0.56	4294	6177	262	83	D	M	0.2583	387.9	2.95	1481	18.7	376.0	2.86	1343	19.6	359.9	2.73	1231	20.2	335.1	2.54
130	137	1412	19.8	19.1	18.0	21.9	23.9	2.65	5.2	12.6	0.29	5.78	43.3	96	2.66	0.122	0.111	9.7	0.55	4236	6177	256	82	D	M	0.2753	388.7	2.84	1396	19.2	377.2	2.76	1281	20.0	362.3	2.65	1185	20.6	339.7	2.49
135	142	1331	20.3	19.6	18.3	22.1	24.2	2.70	5.3	12.8	0.29	6.02	42.9	95	2.74	0.124	0.113	9.5	0.55	4182	6177	249	80	D	M	0.2923	389.1	2.75	1318	19.7	378.0	2.67	1220	20.5	364.1	2.57	1138	21.0	343.4	2.42
140	147	1258	20.7	20.0	18.5	22.3	24.4	2.76	5.4	12.9	0.29	6.27	42.5	94	2.82	0.126	0.116	9.3	0.54	4131	6177	243	79	D	M	0.3093	389.1	2.65	1246	20.2	378.4	2.58	1164	20.9	365.2	2.49	1093	21.4	346.3	2.36
145	152	1192	21.2	20.5	18.7	22.6	24.6	2.81	5.5	13.0	0.29	6.51	42.1	93	2.90	0.128	0.118	9.1	0.54	4082	6177	238	78	D	M	0.3262	388.8	2.56	1183	20.6	378.5	2.50	1113	21.3	366.0	2.41	1052	21.8	348.5	2.30
150	157	1133	21.7	20.9	18.9	22.8	24.8	2.86	5.6	13.1	0.30	6.75	41.8	92	2.97	0.131	0.120	9.0	0.53	4036	6177	233	76	D	M	0.3427	388.3	2.48	1124	21.1	378.3	2.41	1064	21.7	366.3	2.34	1011	22.1	350.2	2.24
155	162	1078	22.1	21.4	19.1	23.0	25.0	2.91	5.7	13.2	0.30	6.99	41.4	91	3.05	0.133	0.122	8.8	0.53	3993	6177	228	75	D	M	0.3596	387.6	2.40	1072	21.5	377.8	2.34	1020	22.1	366.4	2.27	974	22.5	351.4	2.17
160	167	1029	22.6	21.8	19.3	23.1	25.2	2.96	5.8	13.3	0.30	7.22	41.1	90	3.12	0.135	0.124	8.7	0.52	3953	6177	223	74	D	M	0.3758	386.7	2.32	1023	21.9	377.1	2.26	978	22.5	366.1	2.20	938	22.9	352.2	2.11
165	172	983	23.0	22.2	19.5	23.3	25.4	3.01	5.9	13.4	0.30	7.45	40.8	89	3.19	0.137	0.126	8.5	0.52	3915	6177	219	73	D	M	0.3923	385.6	2.25	978	22.3	376.3	2.19	938	22.8	365.7	2.13	903	23.2	352.7	2.05
170	177	942	23.4	22.6	19.7	23.5	25.5	3.05	6.0	13.4	0.30	7.68	40.5	88	3.26	0.139	0.128	8.4	0.52	3880	6177	215	72	D	M	0.4081	384.4	2.18	938	22.7	375.3	2.12	903	23.2	365.0	2.07	871	23.6	352.9	2.00
175	182	904	23.8	23.0	19.9	23.6	25.7	3.10	6.0	13.5	0.31	7.91	40.2	87	3.33	0.141	0.129	8.2	0.51	3847	6177	211	71	D	M	0.4238	383.1	2.11	899	23.1	374.2	2.06	868	23.6	364.2	2.00	838	23.9	352.7	1.94
180	187	868	24.2	23.4	20.0	23.8	25.9	3.14	6.1	13.5	0.31	8.14	40.0	86	3.39	0.143	0.131	8.1	0.51	3816	6177	208	71	D	M	0.4397	381.7	2.04	865	23.5	373.0	2.00	837	23.9	363.2	1.95	811	24.3	352.4	1.89
SI = 16 m Initial Density = 30000 stems/ha																																								
5	12	29057	0.9	0.8	2.0	2.8	3.0	0.67	1.2	0.7	0.63	0.36	1.9	260	0.59	0.208	0.195	2.0	0.03	3563	8249	170	104	D	M	0.0001	1.9	0.16	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	26914	2.0	1.8	3.1	4.5	4.9	0.73	1.4	1.3	0.51	0.42	8.1	174	0.61	0.135	0.125	5.8	0.10	4302	8249	284	114	D	M	0.0005	12.6	0.76	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	24034	2.9	2.7	4.2	6.1	6.7	0.81	1.6	2.1	0.42	0.52	15.9	154	0.65	0.105	0.096	9.3	0.20	4945	8249	378	124	D	M	0.0014	34.1	1.57	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	20924	3.8	3.6	5.3	7.7	8.4	0.88	1.8	3.0	0.37	0.63	23.6	145	0.69	0.090	0.082	12.1	0.30	5437	8249	446	131	D	M	0.0031	64.0	2.40	32	7.9	0.4	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	32	17946	4.6	4.4	6.3	9.1	10.0	0.97	2.0	3.7	0.34	0.75	30.4	139	0.75	0.082	0.074	14.1	0.39	5777	8249	488	135	D	M	0.0055	98.5	3.11	623	7.9	8.1	0.26	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	37	15292	5.5	5.2	7.3	10.3	11.5	1.05	2.1	4.4	0.31	0.89	36.1	134	0.81	0.078	0.071	15.4	0.47	5987	8249	509	137	D	M	0.0088	134.4	3.67	1935	8.2	32.0	0.87	1	12.5	0.0	0.00	0	0.0	0.0	0.00
35	42	13021	6.3	5.9	8.1	11.5	12.8	1.13	2.3	5.1	0.30	1.05	40.5	131	0.88	0.076	0.069	16.1	0.52	6095	8249	516	137	D	M	0.0130	169.2	4.06	3578	8.5	71.5	1.72	16	12.6	1.0	0.02	0	0.0	0.0	0.00
40	47	11120	7.1	6.7	9.0	12.5	14.0	1.22	2.4	5.8	0.29	1.22	43.8	127	0.95	0.076	0.068	16.5	0.57	6129	8249	513	135	D	M	0.0181	201.8	4.32	4609	8.9	114.6	2.46	96	12.8	6.5	0.14	7	14.4	0.5	0.01
45	52	9547	7.9	7.5	9.7	13.5	15.0	1.30	2.6	6.4	0.28	1.40	46.3	124	1.02	0.076	0.068	16.5	0.60	6111	8249	504	133	D	M	0.0242	231.3	4.48	5127	9.3	156.5	3.03	297	13.0	21.7	0.42	39	14.6	3.2	0.06
50	57	8249	8.6	8.2	10.4	14.3	16.0	1.39	2.7	6.9	0.28	1.58	48.0	122	1.10	0.077	0.069	16.4	0.62	6057	8249	490	131	D	M	0.0312	257.7	4.55	5254	9.8	194.4	3.43	656	13.2	51.2	0.90	129	14.8	11.5	0.20
55	62	7177	9.3	8.9	11.1	15.1	16.9	1.47	2.9	7.4	0.27	1.78	49.2	120	1.18	0.078	0.070	16.1	0.64	5979	8249	475	128	D	M	0.0391	280.8	4.55	5134	10.3	227.3	3.69	1034	13.4	87.2	1.41	289	15.0	27.8	0.45
60	67	6287	10.1	9.6	11.7	15.8	17.7	1.55	3.0	7.9	0.27	1.98	50.0	118	1.26	0.080	0.071	15.8	0.65	5885	8249	459	125	D	M	0.0479	301.0	4.51	4877	10.8	255.3	3.83	1386	13.7	126.7	1.90	535	15.1	54.3	0.81
65	72	5546	10.8	10.3	12.2	16.5	18.4	1.63	3.2	8.4	0.27	2.19	50.4	116	1.34	0.082	0.073	15.4	0.65	5782	8249	442	121	D	M	0.0574	318.3	4.44	4558	11.3	279.0	3.89	1672	14.0	165.5	2.31	775	15.4	84.4	1.18
70	77	4924	11.4	10.9	12.8	17.1	19.1	1.70	3.3	8.8	0.27	2.40	50.5	114	1.43	0.084	0.075	15.0	0.65	5674	8249	426	118	D	M	0.0677	333.2	4.35	4223	11.8	299.0	3.90	1877	14.3	201.1	2.62	1000	15.6	117.0	1.53
75	82	4400	12.1	11.6	13.2	17.6	19.7	1.78	3.4	9.2	0.27	2.61	50.5	113	1.51	0.086	0.077	14.5	0.65	5564	8249	410	115	D	M	0.0786	345.9	4.24	3894	12.3	315.7	3.87	2007	14.7	232.3	2.84	1192	15.9	149.5	1.83
80	87	3954	12.7	12.2	13.7	18.1	20.2	1.85	3.6	9.6	0.27	2.83	50.3	111	1.59	0.088	0.079	14.1	0.65	5453	8249	395	112	D	M	0.0902	356.6	4.11	3586	12.9	329.6	3.80	2072	15.0	259.0	2.99	1340	16.2	180.1	2.08
85	92	3574	13.4	12.8	14.1	18.6	20.7	1.92	3.7	9.9	0.27	3.05	50.0	110	1.67	0.090	0.081	13.7	0.65	5345	8249	381	109	D	M	0.1023	365.6	3.99	3300	13.4	341.2	3.72	2087	15.4	281.3	3.07	1444	16.5	207.9	2.27
90	97	3246	14.0	13.4	14.5	19.0	21.2	1.99	3.8	10.3	0.27	3.28	49.7	108	1.76	0.092	0.083	13.3	0.64	5239	8249	367	106	D	M	0.1149	373.0	3.86	3039	13.9	350.9	3.63	2066	15.8	299.8	3.10	1510	16.8	232.4	2.40
95	102	2963	14.5	14.0	14.9	19.4	21.6	2.06	4.0	10.6	0.27	3.50	49.2	107	1.84	0.095	0.085	12.9	0.63	5137	8249	354	104	D	M	0.1279	379.1	3.73	2806	14.4	358.8	3.53	2022	16.1	315.0	3.10	1545	17.1	253.7	2.50
100	107	2717	15.1	14.5	15.3	19.8	22.0	2.12	4.1	10.8	0.27	3.72	48.8	106	1.92	0.097	0.087	12.5	0.63	5038	8249	342	101	D	M	0.1414	384.1	3.60	2595	14.9	365.3	3.42	1960	16.5	327.4	3.07	1553	17.5	271.9	2.55
105	112	2501	15.7	15.1	15.6	20.1	22.4	2.18	4.2	11.1	0.27	3.95	48.3	104	2.00	0.099	0.089	12.2	0.62	4944	8249	331	99	D	M	0.1551	388.0	3.47	2406	15.4	370.5	3.32	1889	16.9	337.5	3.02	1543	17.8	287.3	2.57
110	117	2312	16.2	15.6	15.9	20.4	22.7	2.25	4.4	11.3	0.27	4.17	47.8	103	2.08	0.102	0.091	11.9	0.61	4854	8249	320	96	D	M	0.1692	391.1	3.35	2237	15.9	374.6	3.21	1812	17.3	345.5	2.96	1518	18.1	300.3	2.57
115	122	2145	16.7	16.1	16.2	20.7	23.1	2.31	4.5	11.6	0.28	4.40	47.3	102	2.16	0.104	0.094	11.5	0.61	4768	8249	310	94	D	M	0.1834	393.4	3.23	2086	16.4	377.9	3.11	1736	17.7	352.0	2.89	1486	18.5	311.1	2.56
120	127	1997	17.3	16.6	16.5	21.0	23.4	2.36	4.6	11.8	0.28	4.62	46.7	101	2.24	0.106	0.096	11.3	0.60	4686	8249	301	92	D	M	0.1978	395.0	3.12	1949	16.9	380.4	3.00	1658	18.1	357.1	2.82	1445	18.8	320.1	2.53
125	132	1865	17.8	17.1	16.7	21.3	23.6	2.42	4.7	11.9	0.28	4.84	46.2	100	2.32	0.109	0.098	11.0	0.59	4608	8249	292	90	D	M	0.2124	396.1	3.01	1827	17.3	382.1	2.90	1585	18.5	361.1	2.74	1402	19.2	327.5	2.49
130	137	1748	18.3	17.6	17.0	21.5	23.9	2.48	4.8	12.1	0.28	5.07	45.7	99	2.39	0.111	0.100	10.7	0.59	4534	8249	284	89	D	M	0.2269	396.6	2.90	1715	17.8	383.4	2.81	1511	18.8	364.1	2.66	1355	19.5	333.5	2.44
135	142	1642	18.7	18.1	17.2	21.8	24.2	2.53	4.9	12.3	0.28	5.29	45.3	98	2.47	0.113	0.102	10.5	0.58	4465	8249	277	87	D	M	0.2417	396.8	2.80	1614	18.3	384.1	2.71	1443	19.2	366.3	2.59	1308	19.9	338.5	2.39
140	147	1547	19.2	18.5	17.4	22.0	24.4	2.58	5.0	12.4	0.29	5.51	44.8	97	2.54	0.116	0.104	10.2	0.57	4399	8249	269	85	D	M	0.2564	396.6	2.70	1524	18.7	384.4	2.62	1379	19.6	367.9	2.51	1262	20.2	342.4	2.33
145	152	1461	19.7	19.0	17.7	22.2	24.6	2.63	5.1	12.5	0.29	5.73	44.3	96	2.62	0.118	0.106	10.0	0.57	4336	8249	263	84	D	M	0.2711	396.1	2.61	1440	19.1	384.3	2.53	1317	20.0	368.9	2.43	1215	20.6	345.5	2.28
150	157	1383	20.1	19.4	17.9	22.4	24.8	2.68	5.2	12.6	0.29	5.94	43.9	95	2.69	0.120	0.108	9.8	0.56	4278	8249	256	82	D	M	0.2858	395.3	2.52	1367	19.5	383.9	2.45	1261	20.3	369.4	2.36	1173	20.9	347.9	2.22
155	162	1313	20.5	19.8	18.1	22.6	25.0	2.73	5.3	12.7	0.29	6.16	43.4	94	2.76	0.122	0.110	9.6	0.55	4222	8249	250	81	D	M	0.3003	394.3	2.44	1299	20.0	383.3	2.37	1207	20.7	369.6	2.29	1130	21.2	349.7	2.16
160	167	1248	21.0	20.2	18.2	22.8	25.2	2.78	5.4	12.8	0.29	6.37	43.0	93	2.83	0.124	0.112	9.4	0.55	4170	8249	245	80	D	M	0.3150	393.1	2.36	1235	20.4	382.4	2.29	1155	21.1	369.4	2.22	1088	21.6	351.0	2.11
165	172	1189	21.4	20.6	18.4	23.0	25.4	2.82	5.5	12.9	0.30	6.59	42.6	92	2.90	0.126	0.114	9.2	0.54	4121	8249	240	78	D	M	0.3294	391.7	2.28	1177	20.8	381.4	2.22	1107	21.4	368.9	2.15	1047	21.9	351.8	2.05
170	177	1136	21.8	21.0	18.6	23.1	25.5	2.87	5.6	13.0	0.30	6.80	42.3	91	2.97	0.128	0.116	9.1	0.54	4074	8249	235	77	D	M	0.3435	390.2	2.21	1127	21.1	380.2	2.15	1066	21.8	368.2	2.08	1010	22.3	352.0	1.99
175	182	1086	22.2	21.4	18.7	23.3	25.7	2.91	5.7	13.0	0.30	7.01	41.9	90	3.03	0.130	0.118	8.9	0.53	4030	8249	230	76	D	M	0.3579	388.7	2.14	1078	21.5	378.8	2.09	1025	22.1	367.3	2.02	975	22.6	352.2	1.94
180	187	1041	22.5	21.8	18.9	23.4	25.9	2.96	5.7	13.1	0.30	7.21	41.6	89	3.10	0.132	0.120	8.8	0.53	3989	8249	226	75	D	M	0.3718	387.0	2.07	1033	21.9	377.4	2.02	984	22.5	366.2	1.96	941	22.9	352.1	1.89

Table A81. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 16 m Initial Density = 50000 stems/ha																																								
5	12	48186	0.7	0.7	1.9	2.8	3.0	0.67	1.0	0.7	0.60	0.35	2.0	310	0.46	0.162	0.151	2.4	0.03	5682	11968	250	168	D	M	0.0000	1.9	0.16	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	44084	1.7	1.5	2.9	4.5	4.9	0.71	1.3	1.3	0.47	0.40	9.4	194	0.48	0.107	0.098	7.3	0.13	6509	11968	399	177	D	M	0.0003	13.7	0.82	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	38693	2.5	2.3	3.9	6.1	6.7	0.77	1.4	2.1	0.40	0.47	18.6	168	0.51	0.084	0.076	11.8	0.25	7114	11968	515	182	D	M	0.0010	37.0	1.71	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	33046	3.3	3.1	4.9	7.6	8.4	0.84	1.6	2.8	0.35	0.56	27.5	155	0.55	0.073	0.065	15.3	0.36	7485	11968	592	184	D	M	0.0021	68.8	2.58	2	7.7	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	32	27817	4.0	3.8	5.8	9.0	10.0	0.90	1.7	3.5	0.32	0.66	35.2	147	0.60	0.067	0.060	17.6	0.46	7662	11968	634	183	D	M	0.0038	104.8	3.31	164	7.7	1.9	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	37	23301	4.7	4.5	6.7	10.2	11.5	0.98	1.8	4.1	0.30	0.77	41.3	142	0.66	0.064	0.057	18.9	0.55	7699	11968	651	179	D	M	0.0061	141.4	3.86	978	7.9	13.9	0.38	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	42	19544	5.5	5.2	7.5	11.3	12.8	1.05	2.0	4.8	0.29	0.89	45.9	137	0.72	0.063	0.056	19.6	0.61	7643	11968	650	175	D	M	0.0090	176.4	4.23	2655	8.1	43.8	1.05	1	12.5	0.0	0.00	0	0.0	0.0	0.00
40	47	16476	6.2	5.8	8.2	12.3	14.0	1.12	2.1	5.3	0.28	1.03	49.3	133	0.78	0.063	0.056	19.9	0.65	7528	11968	638	169	D	M	0.0127	208.7	4.47	4179	8.4	83.7	1.79	13	12.6	0.8	0.02	0	0.0	0.0	0.00
45	52	13987	6.9	6.5	8.9	13.3	15.0	1.20	2.2	5.9	0.27	1.17	51.7	129	0.85	0.064	0.056	19.8	0.68	7378	11968	620	164	D	M	0.0170	237.7	4.60	5265	8.8	127.0	2.46	73	12.7	5.0	0.10	3	14.4	0.3	0.01
50	57	11968	7.5	7.1	9.5	14.1	16.0	1.27	2.4	6.4	0.27	1.32	53.4	127	0.91	0.065	0.057	19.4	0.70	7209	11968	598	158	D	M	0.0220	263.3	4.65	5847	9.1	168.3	2.97	253	12.8	18.3	0.32	23	14.5	1.9	0.03
55	62	10324	8.2	7.8	10.1	14.9	16.9	1.34	2.5	6.8	0.26	1.48	54.4	124	0.98	0.066	0.058	19.0	0.72	7030	11968	575	153	D	M	0.0277	285.8	4.63	6031	9.5	205.0	3.32	529	13.0	40.7	0.66	80	14.7	7.1	0.12
60	67	8977	8.8	8.4	10.7	15.6	17.7	1.41	2.6	7.3	0.26	1.64	55.0	122	1.06	0.068	0.060	18.5	0.72	6850	11968	552	147	D	M	0.0340	305.2	4.58	5943	9.9	236.7	3.55	868	13.2	71.3	1.07	210	14.7	19.5	0.29
65	72	7865	9.5	9.0	11.2	16.2	18.4	1.48	2.8	7.7	0.26	1.81	55.2	120	1.13	0.070	0.061	18.0	0.72	6670	11968	529	142	D	M	0.0409	322.0	4.49	5702	10.3	263.5	3.68	1218	13.5	106.7	1.49	385	14.9	37.8	0.53
70	77	6941	10.1	9.6	11.6	16.8	19.1	1.55	2.9	8.1	0.26	1.98	55.2	118	1.20	0.072	0.063	17.4	0.72	6495	11968	506	137	D	M	0.0485	336.3	4.39	5381	10.8	286.0	3.73	1532	13.7	143.1	1.87	593	15.1	61.7	0.80
75	82	6167	10.7	10.2	12.1	17.3	19.7	1.62	3.0	8.5	0.26	2.16	54.9	116	1.27	0.074	0.065	16.8	0.72	6325	11968	485	133	D	M	0.0565	348.4	4.27	5025	11.2	304.7	3.73	1784	14.0	177.9	2.18	810	15.3	89.3	1.09
80	87	5513	11.2	10.7	12.5	17.8	20.2	1.68	3.2	8.8	0.26	2.33	54.6	115	1.35	0.076	0.067	16.3	0.71	6162	11968	465	129	D	M	0.0651	358.7	4.14	4668	11.7	320.3	3.70	1970	14.2	209.6	2.42	1013	15.5	118.4	1.37
85	92	4958	11.8	11.3	12.9	18.2	20.7	1.74	3.3	9.1	0.26	2.51	54.1	113	1.42	0.078	0.069	15.8	0.70	6006	11968	447	125	D	M	0.0741	367.3	4.01	4325	12.1	333.2	3.63	2093	14.5	237.4	2.59	1190	15.8	147.2	1.61
90	97	4483	12.3	11.8	13.2	18.6	21.2	1.81	3.4	9.5	0.26	2.70	53.6	112	1.49	0.080	0.070	15.3	0.70	5858	11968	429	121	D	M	0.0835	374.4	3.87	4001	12.5	343.9	3.56	2161	14.8	261.3	2.70	1333	16.0	174.6	1.81
95	102	4074	12.9	12.3	13.6	19.0	21.6	1.87	3.5	9.7	0.26	2.88	53.0	110	1.57	0.082	0.072	14.8	0.69	5717	11968	413	117	D	M	0.0933	380.3	3.74	3701	13.0	352.6	3.47	2185	15.1	281.4	2.77	1439	16.3	199.6	1.96
100	107	3719	13.4	12.8	13.9	19.4	22.0	1.92	3.7	10.0	0.27	3.07	52.4	109	1.64	0.085	0.074	14.3	0.68	5583	11968	397	114	D	M	0.1035	385.0	3.61	3430	13.4	359.8	3.37	2177	15.4	298.3	2.80	1515	16.5	222.1	2.08
105	112	3410	13.9	13.3	14.2	19.7	22.4	1.98	3.8	10.3	0.27	3.25	51.7	108	1.71	0.087	0.076	13.9	0.67	5456	11968	383	111	D	M	0.1140	388.7	3.48	3182	13.9	365.6	3.27	2144	15.7	312.2	2.80	1561	16.8	241.8	2.17
110	117	3139	14.4	13.8	14.5	20.0	22.7	2.04	3.9	10.5	0.27	3.44	51.1	107	1.78	0.089	0.078	13.5	0.66	5336	11968	370	108	D	M	0.1248	391.6	3.36	2959	14.3	370.2	3.17	2097	16.1	323.6	2.77	1586	17.1	259.0	2.22
115	122	2901	14.9	14.3	14.7	20.3	23.1	2.09	4.0	10.7	0.27	3.63	50.4	105	1.86	0.091	0.080	13.1	0.65	5222	11968	357	105	D	M	0.1357	393.8	3.24	2754	14.7	373.8	3.07	2035	16.4	332.9	2.74	1590	17.3	273.8	2.25
120	127	2690	15.3	14.7	15.0	20.6	23.4	2.15	4.1	10.9	0.27	3.81	49.8	104	1.93	0.094	0.083	12.7	0.64	5115	11968	346	103	D	M	0.1469	395.2	3.12	2574	15.1	376.6	2.97	1971	16.7	340.3	2.69	1583	17.6	286.4	2.26
125	132	2503	15.8	15.2	15.2	20.9	23.6	2.20	4.2	11.1	0.27	4.00	49.1	103	2.00	0.096	0.085	12.4	0.63	5013	11968	335	100	D	M	0.1583	396.2	3.01	2408	15.6	378.7	2.88	1899	17.0	346.3	2.63	1561	17.9	297.1	2.26
130	137	2336	16.3	15.6	15.5	21.1	23.9	2.25	4.3	11.3	0.28	4.19	48.5	102	2.07	0.098	0.087	12.0	0.62	4917	11968	324	98	D	M	0.1698	396.6	2.90	2254	16.0	380.0	2.78	1827	17.4	351.0	2.57	1534	18.2	306.0	2.24
135	142	2187	16.7	16.0	15.7	21.3	24.2	2.30	4.4	11.4	0.28	4.37	47.9	101	2.14	0.100	0.089	11.7	0.61	4827	11968	315	96	D	M	0.1813	396.6	2.80	2117	16.4	380.9	2.69	1755	17.7	354.7	2.50	1498	18.5	313.5	2.21
140	147	2053	17.1	16.5	15.9	21.5	24.4	2.35	4.5	11.6	0.28	4.56	47.3	100	2.21	0.102	0.090	11.4	0.60	4741	11968	306	94	D	M	0.1930	396.3	2.70	1994	16.8	381.3	2.60	1685	18.0	357.4	2.44	1460	18.8	319.7	2.18
145	152	1931	17.6	16.9	16.1	21.7	24.6	2.39	4.6	11.7	0.28	4.75	46.7	99	2.28	0.105	0.092	11.2	0.60	4660	11968	298	92	D	M	0.2049	395.6	2.61	1884	17.2	381.4	2.51	1618	18.3	359.4	2.37	1421	19.1	324.8	2.14
150	157	1822	18.0	17.3	16.3	21.9	24.8	2.44	4.7	11.8	0.28	4.93	46.2	98	2.34	0.107	0.094	10.9	0.59	4583	11968	290	90	D	M	0.2166	394.7	2.52	1783	17.5	381.0	2.43	1553	18.6	360.8	2.30	1380	19.4	329.0	2.10
155	162	1723	18.4	17.7	16.4	22.1	25.0	2.49	4.8	11.9	0.28	5.12	45.7	97	2.41	0.109	0.096	10.7	0.58	4511	11968	282	88	D	M	0.2284	393.5	2.43	1690	17.9	380.4	2.35	1490	19.0	361.6	2.24	1337	19.6	332.3	2.06
160	167	1632	18.8	18.1	16.6	22.3	25.2	2.53	4.9	12.0	0.29	5.30	45.1	96	2.48	0.111	0.098	10.4	0.57	4443	11968	275	87	D	M	0.2403	392.1	2.35	1602	18.3	379.5	2.28	1428	19.3	362.0	2.17	1294	19.9	334.9	2.01
165	172	1550	19.2	18.4	16.8	22.4	25.4	2.57	5.0	12.1	0.29	5.48	44.6	95	2.54	0.113	0.100	10.2	0.57	4378	11968	269	85	D	M	0.2520	390.6	2.28	1524	18.7	378.4	2.20	1372	19.6	362.0	2.11	1253	20.2	336.9	1.96
170	177	1474	19.5	18.8	16.9	22.6	25.5	2.62	5.1	12.2	0.29	5.67	44.2	94	2.60	0.115	0.102	10.0	0.56	4317	11968	263	84	D	M	0.2638	388.9	2.20	1452	19.0	377.2	2.14	1319	19.9	361.7	2.05	1206	20.5	337.9	1.91
175	182	1405	19.9	19.2	17.1	22.8	25.7	2.66	5.2	12.3	0.29	5.85	43.7	93	2.67	0.117	0.104	9.8	0.55	4259	11968	257	82	D	M	0.2756	387.2	2.13	1386	19.4	375.8	2.07	1265	20.2	360.8	1.99	1169	20.8	338.9	1.87
180	187	1342	20.3	19.5	17.2	22.9	25.9	2.70	5.2	12.3	0.30	6.03	43.3	92	2.73	0.119	0.106	9.6	0.54	4205	11968	251	81	D	M	0.2871	385.3	2.06	1326	19.7	374.2	2.00	1218	20.5	360.0	1.93	1132	21.1	339.6	1.82
SI = 16 m Initial Density = 80000 stems/ha																																								
5	12	76742	0.6	0.5	1.7	2.8	3.0	0.66	0.9	0.7	0.57	0.34	2.0	378	0.36	0.129	0.120	2.7	0.04	8763	16984	359	264	D	M	0.0000	1.8	0.15	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	17	69406	1.4	1.3	2.7	4.4	4.9	0.70	1.1	1.3	0.44	0.38	10.6	216	0.38	0.086	0.078	9.0	0.15	9594	16984	545	266	D	M	0.0002	14.4	0.86	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	22	59961	2.1	2.0	3.6	6.0	6.7	0.74	1.2	2.0	0.37	0.44	21.1	182	0.41	0.068	0.061	14.5	0.29	10016	16984	682	262	D	M	0.0006	38.8	1.79	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	27	50339	2.8	2.6	4.5	7.5	8.4	0.80	1.3	2.6	0.33	0.50	31.0	166	0.45	0.059	0.053	18.5	0.42	10108	16984	764	254	D	M	0.0014	71.4	2.68	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	32	41687	3.5	3.3	5.3	8.9	10.0	0.85	1.5	3.3	0.30	0.58	39.3	156	0.49	0.055	0.049	21.1	0.53	9983	16984	802	243	D	M	0.0026	107.5	3.39	18	7.6	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	37	34415	4.1	3.9	6.1	10.1	11.5	0.91	1.6	3.8	0.29	0.67	45.8	149	0.54	0.053	0.047	22.6	0.62	9734	16984	809	231	D	M	0.0042	143.5	3.91	283	7.8	3.5	0.10	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	42	28507	4.8	4.5	6.8	11.2	12.8	0.98	1.7	4.4	0.28	0.77	50.5	143	0.59	0.053	0.046	23.2	0.68	9426	16984	796	219	D	M	0.0062	177.4	4.26	1358	7.9	19.0	0.46	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	47	23777	5.4	5.1	7.5	12.2	14.0	1.04	1.8	4.9	0.27	0.88	53.9	138	0.65	0.053	0.046	23.3	0.72	9096	16984	773	208	D	M	0.0088	208.2	4.46	2885	8.1	47.9	1.03	1	12.4	0.0	0.00	0	0.0	0.0	0.00
45	52	20004	6.0	5.7	8.1	13.1	15.0	1.10	2.0	5.3	0.26	0.99	56.2	134	0.71	0.054	0.047	23.0	0.75	8764	16984	744	198	D	M	0.0118	235.6	4.56	4389	8.3	85.7	1.66	8	12.6	0.5	0.01	0	0.0	0.0	0.00
50	57	16984	6.6	6.2	8.6	13.9	16.0	1.17	2.1	5.8	0.26	1.11	57.6	131	0.77	0.055	0.048	22.5	0.77	8442	16984	712	188	D	M	0.0153	259.6	4.58	5523	8.6	126.2	2.23	51	12.6	3.5	0.06	1	14.3	0.1	0.00
55	62	14552	7.2	6.8	9.1	14.6	16.9	1.23	2.2	6.2	0.26	1.23	58.5	128	0.83	0.057	0.049	21.9	0.78	8135	16984	680	180	D	M	0.0193	280.5	4.55	6202	8.9	164.7	2.67	161	12.7	11.6	0.19	10	14.4	0.9	0.01
60	67	12579	7.7	7.3	9.6	15.3	17.7	1.29	2.3	6.6	0.26	1.36	58.9	125	0.89	0.058	0.050	21.2	0.78	7845	16984	648	172	D	M	0.0237	298.6	4.48	6495	9.2	199.2	2.99	356	12.9	26.9	0.40	44	14.5	3.8	0.06
65	72	10963	8.3	7.9	10.1	15.9	18.4	1.35	2.5	7.0	0.26	1.50	58.9	123	0.96	0.060	0.052	20.5	0.78	7572	16984	618	164	D	M	0.0287	314.1	4.38	6507	9.6	229.0	3.20	622	13.0	49.5	0.69	113	14.6	10.2	0.14
70	77	9629	8.8	8.4	10.5	16.5	19.1	1.41	2.6	7.3	0.26	1.64	58.7	121	1.02	0.062	0.053	19.8	0.77	7316	16984	590	157	D	M	0.0340	327.3	4.27	6339	9.9	254.3	3.32	926	13.2	77.4	1.01	226	14.7	21.4	0.28
75	82	8518	9.3	8.9	10.9	17.0	19.7	1.47	2.7	7.6	0.26	1.78	58.3	119	1.08	0.064	0.055	19.1	0.77	7077	16984	563	151	D	M	0.0398	338.6	4.15	6065	10.3	275.5	3.37	1227	13.4	108.1	1.32	376	14.9	37.3	0.46
80	87	7584	9.8	9.4	11.2	17.5	20.2	1.52	2.8	8.0	0.26	1.92	57.8	118	1.15	0.066	0.057	18.4	0.76	6853	16984	538	146	D	M	0.0459	348.1	4.02	5735	10.6	293.1	3.38	1499	13.6	139.2	1.61	550	15.1	57.3	0.66
85	92	6795	10.3	9.9	11.6	17.9	20.7	1.58	2.9	8.3	0.26	2.06	57.1	116	1.21	0.068	0.059	17.8	0.75	6643	16984	514	140	D	M	0.0524	356.0	3.88	5385	11.0	307.8	3.36	1727	13.8	169.0	1.84	733	15.2	80.1	0.87
90	97	6121	10.8	10.3	11.9	18.3	21.2	1.63	3.0	8.5	0.26	2.21	56.4	115	1.28	0.070	0.060	17.1	0.74	6447	16984	493	135	D	M	0.0592	362.6	3.75	5036	11.4	319.9	3.31	1904	14.1	196.4	2.03	911	15.4	104.1	1.08
95	102	5543	11.3	10.8	12.2	18.7	21.6	1.69	3.2	8.8	0.26	2.36	55.7	113	1.34	0.072	0.062	16.6	0.73	6263	16984	472	131	D	M	0.0664	368.1	3.62	4698	11.7	329.9	3.24	2033	14.3	220.9	2.17	1072	15.6	128.3	1.26
100	107	5044	11.8	11.2	12.5	19.0	22.0	1.74	3.3	9.1	0.26	2.51	55.0	112	1.41	0.074	0.064	16.0	0.71	6091	16984	454	127	D	M	0.0739	372.5	3.49	4380	12.1	338.1	3.17	2116	14.5	242.2	2.27	1210	15.8	151.6	1.42
105	112	4610	12.2	11.7	12.7	19.3	22.4	1.79	3.4	9.3	0.26	2.66	54.2	111	1.47	0.076	0.066	15.5	0.70	5930	16984	436	123	D	M	0.0816	376.0	3.37	4083	12.5	344.8	3.09	2164	14.8	260.6	2.33	1323	16.0	173.5	1.55
110	117	4231	12.7	12.1	13.0	19.6	22.7	1.84	3.5	9.5	0.27	2.81	53.4	109	1.54	0.078	0.068	15.0	0.69	5778	16984	420	119	D	M	0.0895	378.7	3.25	3808	12.8	350.2	3.00	2179	15.0	276.2	2.37	1411	16.2	193.6	1.66
115	122	3898	13.1	12.5	13.2	19.9	23.1	1.89	3.6	9.7	0.27	2.97	52.6	108	1.60	0.080	0.069	14.5	0.68	5636	16984	405	116	D	M	0.0977	380.7	3.13	3556	13.2	354.5	2.91	2171	15.3	289.3	2.38	1474	16.4	211.7	1.74
120	127	3604	13.5	13.0	13.4	20.2	23.4	1.94	3.7	9.9	0.27	3.12	51.9	107	1.67	0.083	0.071	14.1	0.67	5502	16984	391	112	D	M	0.1060	382.1	3.02	3324	13.6	357.9	2.83	2144	15.6	300.3	2.37	1518	16.7	227.8	1.80
125	132	3343	14.0	13.4	13.6	20.4	23.6	1.99	3.8	10.1	0.27	3.27	51.1	106	1.73	0.085	0.073	13.7	0.66	5376	16984	377	109	D	M	0.1145	382.9	2.91	3112	13.9	360.4	2.74	2103	15.8	309.4	2.35	1543	16.9	242.0	1.84
130	137	3111	14.4	13.8	13.8	20.7	23.9	2.03	3.9	10.3	0.27	3.43	50.4	105	1.79	0.087	0.075	13.3	0.65	5257	16984	365	107	D	M	0.1232	383.4	2.81	2911	14.3	362.3	2.65	2056	16.1	316.8	2.32	1555	17.1	254.4	1.86
135	142	2903	14.8	14.1	14.0	20.9	24.2	2.08	4.0	10.4	0.27	3.58	49.7	104	1.86	0.089	0.077	12.9	0.64	5146	16984	353	104	D	M	0.1321	383.4	2.71	2738	14.7	363.6	2.57	2001	16.3	322.9	2.28	1555	17.3	265.1	1.87
140	147	2717	15.2	14.5	14.2	21.1	24.4	2.12	4.1	10.6	0.28	3.73	49.0	103	1.92	0.091	0.079	12.6	0.63	5040	16984	343	101	D	M	0.1410	383.0	2.61	2577	15.0	364.4	2.48	1941	16.6	327.8	2.23	1543	17.6	274.3	1.87
145	152	2549	15.5	14.9	14.4	21.3	24.6	2.16	4.2	10.7	0.28	3.89	48.4	102	1.98	0.093	0.080	12.3	0.62	4941	16984	333	99	D	M	0.1500	382.4	2.52	2432	15.3	364.8	2.41	1882	16.9	331.6	2.19	1526	17.8	282.2	1.86
150	157	2398	15.9	15.3	14.5	21.5	24.8	2.21	4.3	10.8	0.28	4.04	47.7	101	2.04	0.095	0.082	12.0	0.61	4847	16984	323	97	D	M	0.1591	381.5	2.44	2296	15.7	364.8	2.33	1817	17.2	334.6	2.14	1501	18.0	288.9	1.84
155	162	2260	16.3	15.6	14.7	21.6	25.0	2.25	4.4	10.9	0.28	4.20	47.1	100	2.10	0.097	0.084	11.7	0.60	4759	16984	314	95	D	M	0.1683	380.4	2.35	2174	16.0	364.5	2.25	1755	17.4	336.9	2.08	1473	18.3	294.6	1.82
160	167	2136	16.6	16.0	14.8	21.8	25.2	2.29	4.4	11.1	0.28	4.35	46.5	99	2.16	0.099	0.086	11.4	0.59	4675	16984	306	93	D	M	0.1774	379.0	2.27	2064	16.3	363.9	2.18	1697	17.7	338.5	2.03	1444	18.5	299.3	1.80
165	172	2022	17.0	16.3	15.0	21.9	25.4	2.33	4.5	11.2	0.29	4.50	45.9	98	2.22	0.101	0.088	11.1	0.58	4596	16984	298	91	D	M	0.1867	377.5	2.20	1958	16.7	363.0	2.11	1636	18.0	339.6	1.98	1396	18.8	302.2	1.76
170	177	1918	17.4	16.7	15.1	22.1	25.5	2.37	4.6	11.2	0.29	4.66	45.4	97	2.28	0.103	0.089	10.9	0.57	4521	16984	291	89	D	M	0.1960	375.9	2.13	1861	17.0	362.0	2.05	1568	18.3	339.6	1.92	1363	19.0	305.5	1.73
175	182	1823	17.7	17.0	15.2	22.2	25.7	2.41	4.7	11.3	0.29	4.81	44.8	96	2.34	0.105	0.091	10.7	0.56	4450	16984	284	88	D	M	0.2053	374.2	2.06	1776	17.3	360.8	1.99	1514	18.5	340.0	1.87	1330	19.3	308.2	1.70
180	187	1735	18.0	17.3	15.4	22.4	25.9	2.44	4.8	11.4	0.29	4.96	44.3	95	2.40	0.107	0.093	10.4	0.56	4383	16984	277	86	D	M	0.2146	372.3	1.99	1693	17.6	359.4	1.93	1461	18.8	339.9	1.82	1295	19.5	310.4	1.66

Table A82. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
		SI = 17 m Initial Density = 800 stems/ha																																						
5	11	797	2.9	2.7	2.6	3.0	3.1	0.80	2.2	0.4	0.85	0.51	0.5	111	3.54	1.167	1.125	0.3	0.00	153	652	12	4	V	G	0.0009	0.7	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	790	5.4	5.0	4.2	4.9	5.2	1.04	3.3	1.1	0.74	0.88	1.8	97	3.56	0.720	0.689	0.8	0.02	293	652	26	7	A	G	0.0053	4.2	0.26	38	9.2	0.5	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	780	7.6	7.2	5.9	6.8	7.1	1.27	4.1	2.1	0.65	1.33	3.5	95	3.58	0.526	0.501	1.3	0.04	465	652	39	10	A	G	0.0151	11.8	0.55	319	9.7	6.9	0.32	23	13.2	1.0	0.05	4	14.7	0.2	0.01
20	26	766	9.6	9.1	7.4	8.6	9.0	1.49	4.7	3.2	0.59	1.84	5.5	94	3.61	0.422	0.402	1.8	0.06	654	652	52	14	A	G	0.0302	23.1	0.88	520	10.7	18.4	0.70	130	13.9	8.0	0.30	49	15.3	3.3	0.13
25	31	751	11.4	10.8	8.9	10.2	10.7	1.69	5.2	4.3	0.54	2.37	7.6	94	3.65	0.358	0.341	2.3	0.08	847	652	64	18	A	G	0.0503	37.8	1.21	614	11.9	33.1	1.06	268	14.6	21.6	0.69	148	16.0	12.9	0.41
30	36	733	13.0	12.3	10.3	11.6	12.2	1.87	5.5	5.4	0.50	2.91	9.7	93	3.69	0.317	0.302	2.7	0.10	1037	652	75	21	A	G	0.0745	54.6	1.50	653	13.2	50.0	1.38	382	15.5	39.1	1.08	257	16.7	28.0	0.77
35	41	714	14.4	13.8	11.5	13.0	13.6	2.03	5.8	6.4	0.47	3.45	11.7	93	3.74	0.288	0.275	3.1	0.13	1219	652	84	25	A	G	0.1020	72.8	1.76	664	14.4	68.2	1.65	461	16.3	58.4	1.41	349	17.4	46.5	1.13
40	46	693	15.8	15.1	12.7	14.2	14.9	2.19	6.0	7.3	0.45	3.99	13.6	92	3.80	0.268	0.255	3.4	0.15	1390	652	92	28	A	G	0.1322	91.6	1.98	661	15.5	86.9	1.88	510	17.2	78.1	1.69	416	18.1	66.4	1.43
45	51	673	17.0	16.3	13.8	15.3	16.0	2.33	6.2	8.1	0.43	4.51	15.3	92	3.85	0.252	0.241	3.7	0.17	1547	652	99	30	B	G	0.1642	110.5	2.15	652	16.7	105.8	2.06	539	18.0	97.8	1.91	463	18.9	86.6	1.69
50	56	652	18.2	17.5	14.7	16.3	17.0	2.46	6.3	8.9	0.41	5.03	16.9	91	3.92	0.241	0.230	4.0	0.20	1691	652	105	33	B	G	0.1977	128.9	2.29	638	17.7	124.1	2.20	552	18.9	116.7	2.07	491	19.6	106.2	1.89
55	61	631	19.3	18.5	15.6	17.2	17.9	2.58	6.5	9.5	0.40	5.53	18.4	90	3.98	0.232	0.222	4.2	0.22	1822	652	110	35	B	G	0.2322	146.5	2.39	621	18.7	141.6	2.31	556	19.7	134.7	2.20	507	20.4	124.9	2.04
60	66	611	20.3	19.5	16.5	18.0	18.7	2.70	6.6	10.1	0.39	6.02	19.7	90	4.05	0.225	0.216	4.4	0.23	1940	652	114	37	B	G	0.2673	163.3	2.46	604	19.7	158.3	2.39	554	20.5	151.7	2.29	514	21.1	142.6	2.15
65	71	592	21.2	20.4	17.2	18.7	19.5	2.80	6.7	10.7	0.38	6.50	20.9	89	4.11	0.220	0.211	4.5	0.25	2046	652	118	38	B	G	0.3025	179.1	2.51	587	20.6	174.0	2.44	548	21.3	167.7	2.35	516	21.8	159.2	2.23
70	76	573	22.1	21.3	17.9	19.4	20.2	2.90	6.9	11.2	0.38	6.96	21.9	88	4.18	0.215	0.207	4.7	0.27	2142	652	121	40	B	G	0.3379	193.6	2.54	569	21.4	188.4	2.47	539	22.1	182.3	2.39	513	22.5	174.4	2.29
75	81	555	22.9	22.1	18.6	20.0	20.8	3.00	7.0	11.6	0.37	7.41	22.9	87	4.24	0.212	0.204	4.8	0.28	2228	652	123	41	B	G	0.3730	207.0	2.55	552	22.2	201.8	2.48	528	22.8	195.7	2.41	507	23.2	188.4	2.32
80	86	538	23.7	22.9	19.2	20.6	21.3	3.09	7.1	12.0	0.37	7.85	23.7	87	4.31	0.210	0.202	4.9	0.29	2305	652	125	42	B	G	0.4078	219.4	2.54	536	23.0	214.1	2.48	516	23.5	208.1	2.41	499	23.8	201.3	2.33
85	91	522	24.5	23.7	19.7	21.1	21.9	3.17	7.2	12.4	0.36	8.28	24.5	86	4.38	0.207	0.200	5.0	0.31	2375	652	126	43	B	G	0.4421	230.8	2.53	521	23.7	225.5	2.47	504	24.2	219.5	2.40	490	24.5	213.1	2.33
90	96	507	25.2	24.4	20.2	21.6	22.3	3.25	7.3	12.7	0.36	8.69	25.2	85	4.44	0.206	0.199	5.0	0.32	2438	652	128	44	B	G	0.4759	241.3	2.51	506	24.4	235.9	2.45	493	24.8	229.9	2.39	480	25.1	223.8	2.32
95	101	493	25.8	25.0	20.7	22.0	22.8	3.33	7.4	13.0	0.36	9.09	25.8	84	4.50	0.204	0.198	5.1	0.33	2496	652	129	45	B	G	0.5089	250.9	2.48	492	25.1	245.5	2.42	481	25.4	239.5	2.36	471	25.7	233.8	2.31
100	106	480	26.5	25.7	21.1	22.5	23.2	3.40	7.4	13.3	0.36	9.48	26.4	83	4.56	0.203	0.197	5.1	0.34	2549	652	130	46	B	G	0.5413	259.8	2.44	479	25.7	254.3	2.39	470	26.0	248.3	2.34	461	26.3	242.9	2.29
105	111	467	27.1	26.3	21.5	22.8	23.6	3.47	7.5	13.5	0.35	9.86	26.9	83	4.63	0.203	0.196	5.2	0.35	2597	652	130	46	B	G	0.5726	267.4	2.40	467	26.3	261.9	2.35	459	26.6	255.9	2.30	451	26.8	250.7	2.25
110	116	455	27.7	26.9	21.9	23.2	23.9	3.53	7.6	13.7	0.35	10.22	27.4	82	4.69	0.202	0.196	5.2	0.36	2641	652	131	47	B	G	0.6031	274.4	2.36	455	26.9	268.9	2.31	448	27.1	262.9	2.26	442	27.3	258.0	2.22
115	121	444	28.2	27.4	22.3	23.5	24.3	3.59	7.7	13.9	0.35	10.58	27.8	81	4.75	0.202	0.196	5.2	0.37	2683	652	131	47	B	G	0.6329	281.0	2.32	444	27.4	275.4	2.27	438	27.7	269.4	2.22	433	27.8	264.8	2.18
120	126	434	28.8	28.0	22.6	23.8	24.6	3.65	7.7	14.1	0.35	10.93	28.2	81	4.80	0.201	0.195	5.3	0.37	2721	652	131	47	B	G	0.6618	287.2	2.27	434	28.0	281.6	2.23	429	28.2	275.5	2.18	424	28.3	271.0	2.15
125	131	425	29.3	28.5	22.9	24.1	24.8	3.71	7.8	14.2	0.35	11.26	28.6	80	4.85	0.201	0.195	5.3	0.38	2757	652	132	48	B	G	0.6896	293.1	2.23	425	28.5	287.5	2.19	421	28.6	281.4	2.14	416	28.8	277.0	2.11
130	136	416	29.8	29.0	23.2	24.4	25.1	3.76	7.8	14.3	0.35	11.59	28.9	79	4.90	0.201	0.195	5.3	0.39	2791	652	132	48	B	G	0.7166	298.1	2.19	416	29.0	292.4	2.15	412	29.1	286.3	2.10	409	29.3	282.2	2.07
135	141	408	30.2	29.4	23.5	24.7	25.4	3.82	7.9	14.4	0.35	11.90	29.3	79	4.95	0.201	0.195	5.3	0.40	2824	652	132	49	B	G	0.7426	303.0	2.14	408	29.4	297.3	2.10	405	29.6	291.2	2.06	401	29.7	287.1	2.03
140	146	400	30.7	29.9	23.8	24.9	25.6	3.87	8.0	14.5	0.35	12.21	29.6	78	5.00	0.201	0.195	5.3	0.40	2855	652	132	49	B	G	0.7678	307.1	2.10	400	29.9	301.4	2.06	397	30.0	295.2	2.02	394	30.1	291.4	1.99
145	151	392	31.1	30.3	24.0	25.2	25.8	3.91	8.0	14.6	0.35	12.51	29.8	77	5.05	0.201	0.196	5.3	0.41	2884	652	132	49	B	G	0.7918	310.4	2.05	392	30.3	304.7	2.01	390	30.4	298.6	1.97	387	30.5	294.8	1.95
150	156	386	31.5	30.7	24.3	25.4	26.0	3.96	8.0	14.7	0.35	12.80	30.1	77	5.09	0.201	0.196	5.4	0.41	2912	652	133	49	B	G	0.8153	314.7	2.01	386	30.7	309.0	1.98	384	30.8	302.8	1.94	381	31.0	299.1	1.91
155	161	379	31.9	31.1	24.5	25.6	26.2	4.00	8.1	14.8	0.35	13.08	30.3	76	5.14	0.201	0.196	5.4	0.42	2940	652	133	50	B	G	0.8377	317.5	1.97	379	31.1	311.8	1.93	377	31.2	305.5	1.89	375	31.3	302.0	1.87
160	166	373	32.3	31.5	24.7	25.8	26.4	4.05	8.1	14.8	0.35	13.36	30.6	75	5.18	0.201	0.196	5.4	0.43	2966	652	133	50	B	G	0.8592	320.5	1.93	373	31.5	314.8	1.89	371	31.6	308.5	1.86	369	31.7	305.1	1.83
165	171	368	32.7	31.9	24.9	25.9	26.6	4.09	8.2	14.9	0.35	13.63	30.9	75	5.21	0.201	0.196	5.4	0.43	2992	652	133	50	C	G	0.8802	323.9	1.89	368	31.9	318.2	1.86	367	31.9	311.9	1.82	365	32.0	308.6	1.80
170	176	363	33.0	32.2	25.1	26.1	26.8	4.13	8.2	14.9	0.35	13.89	31.1	74	5.25	0.201	0.196	5.4	0.44	3017	652	133	50	C	G	0.9003	326.8	1.85	363	32.2	321.0	1.82	362	32.3	314.7	1.79	360	32.4	311.4	1.77
175	181	358	33.4	32.6	25.3	26.3	26.9	4.16	8.2	14.9	0.35	14.14	31.4	73	5.29	0.201	0.196	5.4	0.44	3041	652	133	51	C	G	0.9196	329.2	1.82	358	32.6	323.4	1.78	357	32.6	317.0	1.75	355	32.8	313.9	1.73
180	186	353	33.7	32.9	25.4	26.4	27.1	4.20	8.3	14.9	0.35	14.39	31.6	73	5.32	0.201	0.197	5.4	0.45	3066	652	133	51	C	G	0.9380	331.1	1.78	353	32.9	325.3	1.75	352	33.0	318.9	1.71	351	33.0	315.9	1.70
		SI = 17 m Initial Density = 1000 stems/ha																																						
5	11	995	2.7	2.5	2.6	3.0	3.1	0.79	2.1	0.4	0.84	0.49	0.6	116	3.17	1.046	1.007	0.3	0.01	184	765	14	5	V	G	0.0008	0.8	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	984	5.1	4.8	4.2	4.9	5.2	1.01	3.2	1.1	0.73	0.83	2.0	100	3.19	0.646	0.617	0.9	0.02	343	765	30	8	A	G	0.0048	4.7	0.29	30	9.0	0.4	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	966	7.2	6.8	5.8	6.8	7.1	1.23	3.9	2.1	0.64	1.25	4.0	97	3.22	0.473	0.450	1.5	0.04	536	765	45	12	A	G	0.0134	12.9	0.61	341	9.5	6.9	0.32	16	13.1	0.7	0.03	2	14.5	0.1	0.00
20	26	944	9.1	8.6	7.4	8.5	9.0	1.44	4.5	3.3	0.57	1.71	6.2	97	3.25	0.381	0.362	2.0	0.06	745	765	60	16	A	G	0.0269	25.4	0.97	601	10.4	19.4	0.74	119	13.7	7.0	0.27	39	15.2	2.5	0.10
25	31	919	10.8	10.3	8.8	10.2	10.7	1.63	4.9	4.4	0.52	2.21	8.5	96	3.30	0.325	0.308	2.6	0.09	958	765	74	20	A	G	0.0449	41.3	1.32	726	11.5	35.5	1.13	276	14.3	21.1	0.67	138	15.7	11.5	0.37
30	36	890	12.4	11.8	10.2	11.6	12.2	1.80	5.2	5.4	0.48	2.71	10.7	96	3.35	0.288	0.274	3.0	0.12	1164	765	85	24	A	G	0.0670	59.6	1.64	776	12.7	53.9	1.49	415	15.1	40.1	1.11	262	16.3	27.1	0.75
35	41	860	13.8	13.2	11.4	12.9	13.6	1.96	5.5	6.4	0.45	3.22	12.9	95	3.41	0.263	0.250	3.5	0.14	1358	765	95	28	A	G	0.0921	79.2	1.92	790	13.8	73.7	1.79	515	15.9	61.2	1.48	373	17.0	46.9	1.14
40	46	828	15.1	14.5	12.6	14.1	14.9	2.11	5.7	7.3	0.43	3.72	14.9	94	3.48	0.246	0.234	3.8	0.17	1538	765	104	31	B	G	0.1199	99.3	2.15	783	15.0	93.8	2.03	578	16.7	82.8	1.79	457	17.7	68.4	1.48
45	51	796	16.4	15.7	13.6	15.2	16.0	2.25	5.9	8.1	0.41	4.23	16.7	94	3.54	0.233	0.222	4.1	0.19	1701	765	111	34	B	G	0.1499	119.3	2.33	767	16.0	113.8	2.22	614	17.5	103.9	2.03	514	18.4	90.1	1.76
50	56	765	17.5	16.8	14.6	16.2	17.0	2.38	6.0	8.9	0.40	4.72	18.4	93	3.62	0.223	0.213	4.4	0.21	1848	765	117	36	B	G	0.1813	138.7	2.46	745	17.1	133.1	2.36	631	18.4	124.3	2.21	550	19.1	111.4	1.98
55	61	735	18.6	17.8	15.5	17.1	17.9	2.51	6.2	9.6	0.39	5.21	19.9	92	3.69	0.216	0.206	4.6	0.23	1979	765	122	38	B	G	0.2139	157.2	2.56	721	18.1	151.6	2.47	635	19.2	143.5	2.34	570	19.9	131.5	2.15
60	66	705	19.6	18.8	16.3	17.9	18.7	2.62	6.3	10.2	0.38	5.68	21.2	91	3.77	0.210	0.201	4.8	0.25	2095	765	126	40	B	G	0.2474	174.4	2.63	695	19.0	168.7	2.54	629	20.0	161.1	2.43	578	20.6	150.2	2.27
65	71	677	20.5	19.8	17.1	18.7	19.5	2.73	6.5	10.7	0.37	6.15	22.4	90	3.84	0.206	0.197	4.9	0.27	2198	765	129	42	B	G	0.2812	190.4	2.67	670	19.9	184.7	2.59	619	20.7	177.5	2.49	578	21.3	167.5	2.35
70	76	651	21.4	20.7	17.8	19.3	20.2	2.83	6.6	11.2	0.37	6.61	23.4	90	3.92	0.203	0.194	5.1	0.29	2289	765	131	43	B	G	0.3154	205.3	2.69	646	20.8	199.6	2.62	606	21.5	192.7	2.53	573	22.0	183.4	2.40
75	81	626	22.3	21.5	18.4	20.0	20.8	2.92	6.7	11.7	0.36	7.06	24.4	89	4.00	0.200	0.192	5.2	0.30	2370	765	133	44	B	G	0.3495	218.8	2.69	622	21.6	213.1	2.62	591	22.2	206.4	2.54	564	22.6	197.8	2.43
80	86	603	23.1	22.3	19.0	20.5	21.3	3.01	6.8	12.1	0.36	7.49	25.2	88	4.07	0.198	0.191	5.2	0.31	2441	765	135	45	B	G	0.3836	231.3	2.68	600	22.4	225.6	2.61	575	22.9	218.9	2.54	553	23.3	211.0	2.45
85	91	581	23.8	23.1	19.6	21.1	21.9	3.10	6.9	12.4	0.35	7.92	25.9	87	4.15	0.197	0.190	5.3	0.32	2505	765	136	46	B	G	0.4172	242.4	2.66	579	23.1	236.7	2.59	559	23.6	230.2	2.52	540	23.9	222.8	2.44
90	96	561	24.5	23.8	20.1	21.5	22.3	3.18	7.0	12.8	0.35	8.33	26.5	86	4.22	0.196	0.189	5.4	0.34	2562	765	137	47	B	G	0.4506	252.8	2.63	560	23.8	247.0	2.57	543	24.2	240.5	2.50	528	24.5	233.6	2.43
95	101	542	25.2	24.5	20.5	22.0	22.8	3.26	7.1	13.0	0.35	8.73	27.1	85	4.30	0.195	0.188	5.4	0.35	2613	765	137	47	B	G	0.4832	261.9	2.59	541	24.5	256.1	2.53	527	24.9	249.7	2.47	515	25.1	243.3	2.40
100	106	524	25.9	25.1	21.0	22.4	23.2	3.33	7.2	13.3	0.35	9.12	27.6	85	4.37	0.195	0.188	5.4	0.35	2659	765	137	48	B	G	0.5153	270.0	2.54	523	25.1	264.2	2.49	512	25.5	257.8	2.43	501	25.7	251.7	2.37
105	111	508	26.5	25.7	21.4	22.8	23.6	3.40	7.3	13.5	0.35	9.50	28.0	84	4.44	0.195	0.188	5.4	0.36	2701	765	138	48	B	G	0.5467	277.7	2.50	507	25.8	271.9	2.44	498	26.0	265.5	2.39	489	26.3	259.8	2.33
110	116	493	27.1	26.3	21.8	23.1	23.9	3.47	7.4	13.7	0.35	9.87	28.5	83	4.50	0.195	0.188	5.5	0.37	2740	765	138	49	B	G	0.5771	284.5	2.45	493	26.3	278.7	2.40	485	26.6	272.4	2.34	477	26.8	267.0	2.30
115	121	479	27.7	26.9	22.1	23.5	24.3	3.53	7.5	13.9	0.35	10.23	28.8	82	4.57	0.195	0.188	5.5	0.38	2775	765	138	49	B	G	0.6069	290.7	2.40	479	26.9	284.9	2.35	472	27.1	278.6	2.30	465	27.4	273.4	2.25
120	126	466	28.2	27.4	22.5	23.8	24.6	3.59	7.6	14.1	0.35	10.58	29.2	82	4.63	0.195	0.189	5.5	0.39	2808	765	138	49	B	G	0.6358	296.3	2.35	466	27.4	290.5	2.30	460	27.7	284.1	2.25	454	27.9	279.2	2.21
125	131	454	28.8	28.0	22.8	24.1	24.8	3.65	7.6	14.2	0.35	10.92	29.5	81	4.69	0.195	0.189	5.5	0.39	2839	765	138	50	B	G	0.6639	301.4	2.30	454	28.0	295.6	2.25	449	28.2	289.2	2.20	444	28.3	284.5	2.17
130	136	443	29.3	28.5	23.1	24.4	25.1	3.71	7.7	14.3	0.35	11.25	29.8	80	4.75	0.195	0.189	5.5	0.40	2868	765	137	50	B	G	0.6910	306.1	2.25	443	28.5	300.3	2.20	439	28.6	294.0	2.16	434	28.8	289.4	2.12
135	141	433	29.7	28.9	23.4	24.6	25.4	3.76	7.8	14.5	0.35	11.58	30.1	79	4.81	0.195	0.189	5.5	0.41	2896	765	137	50	C	G	0.7173	310.6	2.20	433	28.9	304.8	2.16	429	29.1	298.4	2.11	425	29.3	294.1	2.08
140	146	423	30.2	29.4	23.6	24.9	25.6	3.81	7.8	14.6	0.35	11.89	30.3	79	4.86	0.196	0.190	5.5	0.41	2922	765	137	50	C	G	0.7428	314.2	2.15	423	29.4	308.3	2.11	420	29.5	302.0	2.06	416	29.7	297.8	2.04
145	151	414	30.6	29.8	23.9	25.1	25.8	3.86	7.9	14.6	0.35	12.19	30.5	78	4.91	0.196	0.190	5.5	0.42	2948	765	137	50	C	G	0.7671	317.6	2.10	414	29.8	311.8	2.06	411	30.0	305.4	2.02	408	30.1	301.4	1.99
150	156	406	31.1	30.3	24.1	25.3	26.0	3.91	7.9	14.7	0.35	12.49	30.8	77	4.96	0.196	0.191	5.5	0.42	2972	765	137	51	C	G	0.7909	321.1	2.05	406	30.3	315.2	2.02	404	30.4	308.9	1.98	401	30.5	305.0	1.95
155	161	398	31.5	30.7	24.3	25.5	26.2	3.96	8.0	14.8	0.35	12.78	31.0	77	5.01	0.196	0.191	5.5	0.43	2996	765	137	51	C	G	0.8138	323.9	2.01	398	30.7	318.0	1.97	396	30.8	311.6	1.93	393	30.9	307.8	1.91
160	166	391	31.9	31.1	24.5	25.7	26.4	4.00	8.0	14.8	0.35	13.06	31.2	76	5.06	0.197	0.191	5.5	0.43	3019	765	137	51	C	G	0.8358	326.8	1.97	391	31.1	320.9	1.93	389	31.2	314.5	1.89	387	31.3	310.9	1.87
165	171	384	32.3	31.5	24.7	25.9	26.6	4.04	8.1	14.9	0.35	13.33	31.4	75	5.10	0.197	0.192	5.5	0.44	3041	765	136	51	C	G	0.8570	329.1	1.92	384	31.5	323.2	1.89	382	31.6	316.7	1.85	380	31.7	313.2	1.83
170	176	378	32.6	31.8	24.9	26.1	26.8	4.08	8.1	14.9	0.35	13.60	31.6	75	5.14	0.197	0.192	5.5	0.44	3063	765	136	51	C	G	0.8772	331.6	1.88	378	31.8	325.7	1.85	377	31.9	319.3	1.81	375	32.0	315.9	1.79
175	181	372	33.0	32.2	25.1	26.2	26.9	4.12	8.1	14.9	0.35	13.86	31.8	74	5.18	0.198	0.193	5.5	0.45	3085	765	136	52	C	G	0.8970	333.7	1.84	372	32.2	327.7	1.81	371	32.2	321.3	1.77	369	32.4	318.0	1.75
180	186	367	33.4	32.5	25.3	26.4	27.1	4.16	8.2	14.9	0.35	14.11	32.1	73	5.22	0.198	0.193	5.6	0.45	3106	765	136	52	C	G	0.9158	336.1	1.80	367	32.5	330.2	1.77	366	32.6	323.7	1.74	364	32.7	320.4	1.72

Table A83. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Utilization standard (Util. std.) = 0/0 (total volume)

Bh age	Total age	N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}
SI = 17 m Initial Density = 1600 stems/ha																	
5	11	1587	2.4	2.2	2.5	3.0	3.1	0.76	2.0	0.4	0.81	0.46	0.7	127	2.51	0.831	0.797
10	16	1558	4.6	4.3	4.1	4.9	5.2	0.96	2.9	1.2	0.70	0.74	2.5	107	2.53	0.515	0.491
15	21	1514	6.5	6.1	5.7	6.8	7.1	1.15	3.6	2.2	0.60	1.09	5.0	103	2.57	0.380	0.360
20	26	1459	8.2	7.7	7.2	8.5	9.0	1.34	4.0	3.3	0.54	1.48	7.7	102	2.62	0.308	0.291
25	31	1396	9.8	9.3	8.6	10.1	10.7	1.51	4.4	4.4	0.49	1.90	10.5	101	2.68	0.265	0.250
30	36	1329	11.2	10.7	9.9	11.6	12.2	1.68	4.7	5.5	0.45	2.33	13.2	101	2.74	0.237	0.224
35	41	1259	12.6	12.0	11.2	12.9	13.6	1.83	4.9	6.5	0.42	2.78	15.7	100	2.82	0.219	0.207
40	46	1190	13.9	13.2	12.3	14.1	14.9	1.97	5.1	7.4	0.40	3.23	18.0	99	2.90	0.206	0.195
45	51	1122	15.0	14.4	13.3	15.1	16.0	2.11	5.3	8.2	0.39	3.69	19.9	98	2.99	0.197	0.187
50	56	1058	16.2	15.5	14.3	16.1	17.0	2.23	5.5	8.9	0.37	4.15	21.7	97	3.07	0.191	0.181
55	61	997	17.2	16.5	15.2	17.0	17.9	2.36	5.6	9.6	0.37	4.60	23.2	96	3.17	0.186	0.177
60	66	940	18.2	17.5	16.0	17.8	18.7	2.47	5.8	10.2	0.36	5.05	24.5	95	3.26	0.183	0.174
65	71	888	19.2	18.5	16.7	18.5	19.5	2.58	5.9	10.7	0.35	5.49	25.6	94	3.36	0.181	0.172
70	76	840	20.1	19.4	17.4	19.2	20.2	2.68	6.1	11.2	0.35	5.93	26.6	93	3.45	0.180	0.171
75	81	796	20.9	20.2	18.0	19.8	20.8	2.78	6.2	11.7	0.34	6.37	27.4	92	3.54	0.179	0.171
80	86	755	21.8	21.0	18.6	20.4	21.3	2.87	6.4	12.1	0.34	6.79	28.1	91	3.64	0.178	0.170
85	91	719	22.5	21.8	19.2	20.9	21.9	2.96	6.5	12.4	0.34	7.21	28.7	90	3.73	0.178	0.171
90	96	685	23.3	22.5	19.7	21.4	22.3	3.04	6.6	12.8	0.34	7.62	29.2	89	3.82	0.178	0.171
95	101	655	24.0	23.3	20.2	21.9	22.8	3.12	6.7	13.0	0.34	8.02	29.6	88	3.91	0.179	0.171
100	106	627	24.7	23.9	20.6	22.3	23.2	3.20	6.8	13.3	0.34	8.41	30.0	87	3.99	0.179	0.172
105	111	602	25.3	24.6	21.0	22.7	23.6	3.27	6.9	13.5	0.34	8.80	30.4	86	4.08	0.180	0.173
110	116	579	26.0	25.2	21.4	23.0	23.9	3.34	7.0	13.7	0.34	9.17	30.6	85	4.16	0.181	0.174
115	121	558	26.6	25.8	21.7	23.3	24.3	3.41	7.1	13.9	0.34	9.53	30.9	84	4.23	0.181	0.175
120	126	538	27.1	26.4	22.1	23.7	24.6	3.47	7.2	14.1	0.34	9.89	31.1	83	4.31	0.182	0.176
125	131	521	27.7	26.9	22.4	24.0	24.8	3.53	7.3	14.2	0.34	10.23	31.4	83	4.38	0.183	0.176
130	136	505	28.2	27.4	22.7	24.2	25.1	3.59	7.4	14.4	0.34	10.57	31.6	82	4.45	0.184	0.177
135	141	490	28.7	27.9	23.0	24.5	25.4	3.65	7.5	14.5	0.34	10.90	31.7	81	4.52	0.185	0.178
140	146	476	29.2	28.4	23.2	24.7	25.6	3.70	7.5	14.6	0.34	11.22	31.9	80	4.58	0.185	0.179
145	151	463	29.7	28.9	23.5	25.0	25.8	3.76	7.6	14.6	0.34	11.53	32.0	80	4.65	0.186	0.180
150	156	452	30.1	29.3	23.7	25.2	26.0	3.80	7.7	14.7	0.34	11.83	32.2	79	4.70	0.187	0.181
155	161	441	30.6	29.8	23.9	25.4	26.2	3.85	7.7	14.8	0.34	12.13	32.3	78	4.76	0.188	0.182
160	166	431	31.0	30.2	24.2	25.6	26.4	3.90	7.8	14.8	0.34	12.42	32.5	77	4.82	0.188	0.182
165	171	422	31.4	30.6	24.4	25.8	26.6	3.94	7.8	14.9	0.34	12.70	32.6	77	4.87	0.189	0.183
170	176	413	31.8	31.0	24.6	25.9	26.8	3.99	7.9	14.9	0.34	12.97	32.7	76	4.92	0.190	0.184
175	181	405	32.1	31.3	24.7	26.1	26.9	4.03	7.9	14.9	0.34	13.24	32.9	75	4.97	0.190	0.185
180	186	398	32.5	31.7	24.9	26.3	27.1	4.07	8.0	14.9	0.34	13.50	33.0	75	5.01	0.191	0.185
SI = 17 m Initial Density = 2000 stems/ha																	
5	11	1981	2.2	2.1	2.5	3.0	3.1	0.75	1.9	0.5	0.80	0.45	0.8	132	2.25	0.745	0.713
10	16	1936	4.3	4.0	4.0	4.9	5.2	0.93	2.8	1.2	0.68	0.70	2.8	110	2.27	0.463	0.440
15	21	1871	6.1	5.8	5.6	6.8	7.1	1.12	3.4	2.3	0.59	1.02	5.6	106	2.31	0.342	0.324
20	26	1790	7.8	7.4	7.1	8.5	9.0	1.29	3.8	3.4	0.52	1.38	8.6	105	2.36	0.279	0.263
25	31	1698	9.3	8.8	8.5	10.1	10.7	1.46	4.1	4.5	0.47	1.77	11.6	104	2.43	0.241	0.227
30	36	1601	10.7	10.2	9.8	11.5	12.2	1.62	4.4	5.5	0.44	2.18	14.5	103	2.50	0.217	0.204
35	41	1503	12.1	11.5	11.0	12.8	13.6	1.77	4.6	6.5	0.41	2.60	17.1	102	2.58	0.201	0.189
40	46	1407	13.3	12.7	12.1	14.0	14.9	1.91	4.9	7.4	0.39	3.03	19.5	101	2.67	0.190	0.179
45	51	1315	14.5	13.8	13.2	15.1	16.0	2.04	5.0	8.2	0.38	3.46	21.6	100	2.76	0.183	0.172
50	56	1228	15.6	14.9	14.1	16.1	17.0	2.17	5.2	8.9	0.36	3.90	23.4	99	2.85	0.178	0.168
55	61	1148	16.6	16.0	15.0	16.9	17.9	2.29	5.4	9.6	0.36	4.34	24.9	97	2.95	0.174	0.165
60	66	1074	17.6	16.9	15.8	17.8	18.7	2.40	5.6	10.2	0.35	4.77	26.2	96	3.05	0.172	0.163
65	71	1006	18.6	17.9	16.5	18.5	19.5	2.51	5.7	10.7	0.34	5.21	27.2	95	3.15	0.171	0.162
70	76	945	19.5	18.8	17.2	19.2	20.2	2.61	5.9	11.2	0.34	5.64	28.1	94	3.25	0.170	0.161
75	81	890	20.3	19.6	17.9	19.8	20.8	2.71	6.0	11.7	0.34	6.06	28.9	93	3.35	0.170	0.161
80	86	839	21.2	20.4	18.4	20.3	21.3	2.80	6.1	12.0	0.33	6.48	29.5	92	3.45	0.170	0.162
85	91	794	21.9	21.2	19.0	20.9	21.9	2.89	6.3	12.4	0.33	6.89	30.0	91	3.55	0.170	0.162
90	96	753	22.7	22.0	19.5	21.3	22.3	2.98	6.4	12.7	0.33	7.30	30.5	90	3.64	0.171	0.163
95	101	716	23.4	22.7	20.0	21.8	22.8	3.06	6.5	13.0	0.33	7.70	30.9	89	3.74	0.172	0.164
100	106	683	24.1	23.4	20.4	22.2	23.2	3.14	6.6	13.3	0.33	8.09	31.2	88	3.83	0.172	0.165
105	111	652	24.8	24.0	20.8	22.6	23.6	3.21	6.8	13.5	0.33	8.47	31.4	87	3.92	0.173	0.166
110	116	625	25.4	24.7	21.2	22.9	23.9	3.28	6.9	13.7	0.33	8.84	31.7	86	4.00	0.174	0.167
115	121	600	26.0	25.3	21.5	23.3	24.3	3.35	7.0	13.9	0.33	9.20	31.9	85	4.08	0.175	0.168
120	126	577	26.6	25.8	21.9	23.6	24.6	3.41	7.1	14.1	0.33	9.56	32.1	84	4.16	0.177	0.170
125	131	556	27.2	26.4	22.2	23.9	24.8	3.48	7.2	14.2	0.33	9.90	32.2	84	4.24	0.178	0.171
130	136	538	27.7	26.9	22.5	24.2	25.1	3.54	7.2	14.3	0.33	10.24	32.4	83	4.31	0.179	0.172
135	141	520	28.2	27.4	22.8	24.4	25.4	3.59	7.3	14.4	0.33	10.57	32.5	82	4.39	0.180	0.173
140	146	504	28.7	27.9	23.0	24.7	25.6	3.65	7.4	14.5	0.33	10.89	32.6	81	4.45	0.181	0.174
145	151	490	29.2	28.4	23.3	24.9	25.8	3.70	7.5	14.6	0.33	11.20	32.8	80	4.52	0.182	0.175
150	156	476	29.6	28.8	23.5	25.1	26.0	3.75	7.5	14.7	0.34	11.51	32.8	80	4.58	0.183	0.176
155	161	464	30.1	29.3	23.7	25.3	26.2	3.80	7.6	14.8	0.34	11.81	33.0	79	4.64	0.183	0.177
160	166	453	30.5	29.7	24.0	25.5	26.4	3.85	7.7	14.8	0.34	12.10	33.1	78	4.70	0.184	0.178
165	171	442	30.9	30.1	24.2	25.7	26.6	3.89	7.7	14.9	0.34	12.38	33.2	77	4.76	0.185	0.179
170	176	432	31.3	30.5	24.4	25.9	26.8	3.94	7.8	14.9	0.34	12.66	33.3	77	4.81	0.186	0.180
175	181	423	31.7	30.9	24.5	26.0	26.9	3.98	7.8	14.9	0.34	12.93	33.4	76	4.86	0.187	0.181
180	186	415	32.1	31.3	24.7	26.2	27.1	4.02	7.9	14.9	0.34	13.19	33.5	75	4.91	0.188	0.181

Bh age	Total age	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	Util. std. = 8/6 N	D	V/ha	Mai	Util. std. = 13/7 N	D	V/ha	Mai	Util. std = 15/10 N	D	V/ha	Mai
SI = 17 m Initial Density = 1600 stems/ha																								
5	11	0.5	0.01	275	1058	20	7	A	G	0.0006	0.9	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	1.2	0.03	480	1058	41	12	A	G	0.0037	5.7	0.35	13	8.8	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	2.0	0.05	724	1058	62	16	A	G	0.0103	15.6	0.73	360	9.0	6.3	0.30	6	12.8	0.2	0.01	0	0.0	0.0	0.00
20	26	2.7	0.08	982	1058	81	22	A	G	0.0210	30.6	1.16	779	9.8	21.0	0.80	83	13.3	4.6	0.17	18	14.9	1.1	0.04
25	31	3.4	0.12	1237	1058	98	27	A	G	0.0355	49.5	1.58	1005	10.7	40.4	1.29	263	13.9	18.4	0.59	102	15.3	7.8	0.25
30	36	3.9	0.15	1477	1058	112	31	B	G	0.0533	70.9	1.95	1097	11.8	62.3	1.72	462	14.5	39.9	1.10	245	15.8	23.0	0.63
35	41	4.4	0.18	1696	1058	124	35	B	G	0.0743	93.5	2.26	1117	12.8	85.3	2.07	619	15.2	64.9	1.57	398	16.4	44.6	1.08
40	46	4.8	0.21	1891	1058	133	38	B	G	0.0977	116.3	2.51	1101	13.9	108.5	2.34	725	15.9	90.7	1.96	526	17.0	69.6	1.50
45	51	5.1	0.23	2061	1058	140	41	B	G	0.1234	138.5	2.70	1064	14.9	131.0	2.55	785	16.6	115.6	2.25	617	17.6	95.1	1.85
50	56	5.4	0.26	2209	1058	146	44	B	G	0.1509	159.7	2.84	1019	15.9	152.4	2.71	812	17.4	139.0	2.47	676	18.2	119.9	2.13
55	61	5.6	0.28	2335	1058	150	46	B	G	0.1799	179.4	2.93	971	16.8	172.2	2.81	816	18.1	160.4	2.62	707	18.9	142.9	2.33
60	66	5.7	0.30	2442	1058	152	47	B	G	0.2101	197.5	2.98	922	17.8	190.4	2.87	806	18.9	179.9	2.71	719	19.6	164.0	2.47
65	71	5.9	0.31	2534	1058	154	49	B	G	0.2411	214.1	3.00	875	18.7	207.2	2.91	787	19.6	197.5	2.77	718	20.2	183.1	2.57
70	76	5.9	0.33	2611	1058	155	50	B	G	0.2727	229.1	3.00	831	19.5	222.2	2.91	763	20.3	213.2	2.79	709	20.9	200.3	2.63
75	81	6.0	0.34	2677	1058	156	51	C	G	0.3048	242.6	2.98	789	20.3	235.8	2.90	737	21.1	227.3	2.80	693	21.6	215.5	2.65
80	86	6.0	0.35	2733	1058	156	51	C	G	0.3368	254.3	2.95	750	21.1	247.6	2.87	709	21.8	239.5	2.78	674	22.2	228.8	2.65
85	91	6.0	0.36	2781	1058	156	52	C	G	0.3690	265.3	2.91	715	21.9	258.7	2.83	683	22.4	250.9	2.75	654	22.9	241.1	2.64
90	96	6.0	0.37	2822	1058	155	52	C	G	0.4010	274.7	2.85	682	22.6	268.1	2.78	656	23.1	260.5	2.71	633	23.5	251.5	2.61
95	101	6.0	0.38	2858	1058	155	53	C	G	0.4327	283.4	2.80	653	23.3	276.9	2.73	632	23.7	269.5	2.66	613	24.1	261.2	2.58
100	106	6.0	0.39	2890	1058	154	53	C	G	0.4640	290.9	2.74	626	24.0	284.4	2.68	608	24.4	277.1	2.61	592	24.7	269.4	2.53
105	111	6.0	0.39	2918	1058	153	53	C	G	0.4947	297.8	2.68	601	24.6	291.3	2.62	587	24.9	284.2	2.55	573	25.2	277.0	2.49
110	116	6.0	0.40	2943	1058	152	53	C	G	0.5249	303.9	2.61	578	25.2	297.5	2.56	566	25.5	290.4	2.50	555	25.8	283.7	2.44
115	121	6.0	0.40	2966	1058	152	53	C	G	0.5543	309.3	2.55	557	25.8	302.9	2.50	547	26.1	295.9	2.44	538	26.3	289.7	2.39
120	126	6.0	0.41	2987	1058	151	53	C	G	0.5831	313.7	2.48	538	26.4	307.4	2.43	529	26.6	300.4	2.38	521	26.8	294.5	2.33
125	131	6.0	0.42	3006	1058	150	53	C	G	0.6111	318.4	2.43	521	26.9	312.1	2.38	514	27.1	305.2	2.32	506	27.4	299.6	2.28
130	136	5.9	0.42	3025	1058	149	53	C	G	0.6384	322.4	2.37	505	27.4	316.1	2.32	499	27.6	309.3	2.27	492	27.8	303.9	2.23
135	141	5.9	0.42	3042	1058	148	53	C	G	0.6649	325.8	2.31	490	27.9	319.5	2.26	485	28.1	312.7	2.21	479	28.3	307.6	2.18
140	146	5.9	0.43	3059	1058	147	53	C	G	0.6905	328.7	2.25	476	28.4	322.5	2.20	471	28.6	315.7	2.16	467	28.7	310.9	2.13
145	151	5.9	0.43	3076	1058	146	53	C	G	0.7153	331.2	2.19	463	28.9	325.0	2.15	459	29.0	318.3	2.10	455	29.2	313.6	2.07
150	156	5.9	0.44	3092	1058	146	53	C	G	0.7396	334.3	2.14	452	29.3	328.1	2.10	449	29.5	321.3	2.06	445	29.6	316.9	2.03
155	161	5.8	0.44	3108	1058	145	53	C	G	0.7628	336.4	2.09	441	29.8	330.2	2.05	438	29.9	323.4	2.01	435	30.0	319.2	1.98
160	166	5.8	0.44	3124	1058	145	54	C	G	0.7854	338.5	2.04	431	30.2	332.3	2.00	428	30.3	325.5	1.96	425	30.4	321.4	1.93
165	171	5.8	0.45	3139	1058	144	54	C	G	0.8071	340.6	1.99	422	30.6	334.4	1.95	420	30.7	327.6	1.91	417	30.8	323.7	1.89
170	176	5.8	0.45	3155	1058	144	54	C	G	0.8278	341.9	1.94	413	31.0	335.7	1.90	411	31.1	329.0	1.87	408	31.2	325.1	1.84
175	181	5.8	0.45	3170	1058	143	54	C	G	0.8481	343.5	1.89	405	31.3	337.3	1.86	403	31.4	330.5	1.82	401	31.5	326.9	1.80
180	186	5.8	0.46	3186	1058	143	54	C	G	0.8676	345.3	1.85	398	31.7	339.1	1.82	396	31.8	332.3	1.78	394	31.9	328.7	1.76
SI = 17 m Initial Density = 2000 stems/ha																								
5	11	0.5	0.01	333	1228	24	9	A	G	0.0005	1.0	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	1.4	0.03	564	1228	48	14	A	G	0.0032	6.2	0.38	7	8.8	0.1	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	2.2	0.06	836	1228	72	19	A	G	0.0091	17.1	0.80	351	8.9	5.8	0.27	3	12.6	0.1	0.00	0	0.0	0.0	0.00
20	26	3.1	0.09	1120	1228	93	25	A	G	0.0186	33.3	1.27	859	9.5	21.3	0.81	64	13.2	3.4	0.13	11	14.7	0.7	0.03
25	31	3.8	0.13	1396	1228	112	30	B	G	0.0316	53.7	1.72	1155	10.4	42.3	1.35	243	13.6	16.3	0.52	80	15.1	5.9	0.19
30	36	4.4	0.16	1651	1228	127	35	B	G	0.0478	76.5	2.11	1279	11.4	66.0	1.82	466	14.2	38.4	1.06	224	15.6	20.1	0.55
35	41	4.9	0.20	1880	1228	139	39	B	G	0.0669	100.6	2.44	1307	12.4	90.8	2.20	658	14.8	65.3	1.58	394	16.1	42.1	1.02
40	46	5.4	0.23	2080	1228	149	43	B	G	0.0886	124.6	2.69	1284	13.4	115.4	2.49	790	15.5	93.1	2.01	545	16.6	68.3	1.48
45	51	5.7	0.26	2252	1228	156	46	B	G	0.1125	147.9	2.88	1236	14.4	139.1	2.71	868	16.2	120.1	2.34	657	17.2	95.6	1.86
50	56	5.9	0.28	2397	1228	161	48	B	G	0.1383	169.8	3.02	1176	15.3	161.3	2.87	904	16.9	145.1	2.58	731	17.8	122.2	2.17
55	61	6.1	0.30	2519	1228	164	50	B	G	0.1656	190.1	3.10	1113	16.3	181.9	2.97	911	17.6	167.8	2.74	772	18.5	146.9	2.40
60	66	6.2	0.32	2620	1228	166	51	C	G	0.1942	208.6	3.15	1050	17.2	200.7	3.03	899	18.4	188.2	2.84	789	19.1	169.4	2.56
65	71	6.3	0.33	2704	1228	167	52	C	G	0.2238	225.1	3.16	989	18.1	217.4	3.05	876	19.1	206.3	2.89	789	19.8	189.4	2.66
70	76	6.4	0.35	2773	1228	168	53	C	G	0.2542	240.2	3.15	933	18.9	232.6	3.05	847	19.8	222.4	2.92	778	20.4	207.2	2.72
75	81	6.4	0.36	2830	1228	168	54	C	G	0.2849	253.6	3.12	881	19.8	246.2	3.03	815	20.5	236.8	2.91	760	21.1	223.1	2.74
80	86	6.4	0.37	2878	1228	167	54	C	G	0.3161	265.2	3.07	833	20.5	258.0	2.99	781	21.2	249.0	2.89	737	21.7	236.7	2.74
85	91	6.4	0.38	2918	1228	166	55	C	G	0.3474	275.8	3.02	789	21.3	268.7	2.94	749	21.9	260.2	2.85	713	22.4	248.9	2.73
90	96	6.4	0.39	2951	1228	165	55	C	G	0.3786	285.1	2.96	749	22.1	278.0	2.89	717	22.6	269.8	2.80	688	23.0	259.6	2.70
95	101	6.4	0.39	2979	1228	164	55	C	G	0.4096	293.3	2.90	713	22.8	286.3	2.83	687	23.2	278.4	2.75	664	23.6	269.0	2.66
100	106	6.4	0.40	3003	1228	163	55	C	G	0.4403	300.7	2.83	681	23.4	293.8	2.76	660	23.8	286.1	2.69	640	24.2	277.5	2.61
105	111	6.3	0.41	3024	1228	161	55	C	G	0.4706	306.8	2.76	651	24.1	300.0	2.70	633	24.4	292.4	2.63	617	24.7	284.5	2.56
110	116	6.3	0.41	3043	1228	160	55	C	G	0.5003	312.7	2.69	624	24.7	306.0	2.63	610	25.0	298.6	2.57	596	25.3	291.1	2.50
115	121	6.3	0.42	3059	1228	158	55	C	G	0.5295	317.7	2.62	599	25.3	311.0	2.56	587	25.6	303.7	2.50	576	25.8	296.8	2.45
120	126	6.2	0.42	3074	1228	157	55	C	G	0.5581	322.0	2.55	576	25.9	315.4	2.50	566	26.1	308.1	2.44	556	26.4	301.6	2.39
125	131	6.2	0.43	3088	1228	156	55	C	G	0.5860	325.8	2.48	556	26.4	319.2	2.43	547	26.7	312.0	2.38	539	26.9	305.9	2.33
130	136	6.2	0.43	3102	1228	155	55	C	G	0.6130	329.8	2.42	538	26.9	323.3	2.37	530	27.2	316.2	2.32	523	27.4	310.4	2.28
135	141	6.1	0.43	3114	1228	153	55	C	G	0.6394	332.5	2.35	520	27.4	326.0	2.31	514	27.6	319.0	2.26	507	27.8	313.5	2.22
140	146	6.1	0.44	3127	1228	152	55	C	G	0.6651	335.2	2.29	504	27.9	328.8	2.25	498	28.1	321.7	2.20	493	28.3	316.6	2.16
145	151	6.1	0.44	3139	1228	152	55	C	G	0.6900	338.1	2.23	490	28.4	331.7	2.19	485	28.6	324.7	2.15	480	28.7	319.7	2.11
150	156	6.0	0.44	3151	1228	150	55	C	G	0.7141	339.9	2.17	476	28.8	333.5	2.13	472	29.0	326.6	2.09	467	29.2	321.8	2.06
155	161	6.0	0.45	3163	1228	150	55	C	G	0.7375	342.2	2.12	464	29.3	335.8	2.08	460	29.5	328.9	2.04	456	29.6	324.3	2.01
160	166	6.0	0.45	3175	1228	149	55	C	G	0.7600	344.3	2.07	453	29.7	338.0	2.03	450	29.8	331.1	1.99	446	30.0	326.6	1.96
165	171	6.0	0.45	3187	1228	148	55	C	G	0.7819	345.6	2.02	442	30.1	339.3	1.98	439	30.3	332.4	1.94	436	30.4	328.2	1.92
170	176	5.9	0.46	3200	1228	147	55	C	G	0.8030	346.9	1.97	432	30.5	340.6	1.93	430	30.6	333.7	1.89	427	30.7	329.6	1.87
175	181	5.9	0.46	3212	1228	147	55	C	G	0.8234	348.3	1.92	423	30.9	342.0	1.89	421	31.0	335.1	1.85	418	31.1	331.1	1.83
180	186	5.9	0.46	3225	1228	146	55	C	G	0.8429	349.8	1.88	415	31.3	343.5	1.84	413	31.4	336.6	1.81	411	31.5	332.9	1.79

Table A84. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 17 m Initial Density = 3000 stems/ha																																								
5	11	2961	2.0	1.9	2.4	3.0	3.1	0.74	1.8	0.5	0.78	0.43	0.9	143	1.84	0.611	0.584	0.7	0.01	471	1605	32	13	A	G	0.0004	1.2	0.11	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	2873	3.9	3.6	3.9	4.9	5.2	0.89	2.6	1.3	0.65	0.64	3.4	117	1.87	0.382	0.361	1.7	0.04	758	1605	63	18	A	G	0.0025	7.2	0.44	2	8.5	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	2744	5.6	5.2	5.5	6.7	7.1	1.06	3.1	2.3	0.56	0.91	6.7	112	1.91	0.284	0.267	2.8	0.07	1086	1605	93	25	A	G	0.0072	19.8	0.93	298	8.6	4.4	0.21	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	2588	7.1	6.7	6.9	8.4	9.0	1.22	3.5	3.4	0.49	1.22	10.3	110	1.97	0.233	0.218	3.9	0.12	1420	1605	120	32	B	G	0.0149	38.6	1.47	975	9.1	21.0	0.80	31	12.9	1.6	0.06	3	14.5	0.2	0.01
25	31	2416	8.5	8.1	8.3	10.0	10.7	1.37	3.7	4.5	0.45	1.56	13.8	108	2.03	0.203	0.190	4.7	0.16	1735	1605	141	38	B	G	0.0255	61.7	1.97	1445	9.9	45.0	1.44	184	13.3	11.7	0.37	43	14.9	3.0	0.10
30	36	2239	9.9	9.4	9.6	11.5	12.2	1.52	4.0	5.5	0.41	1.92	17.1	107	2.11	0.184	0.173	5.4	0.20	2017	1605	159	43	B	G	0.0390	87.4	2.41	1659	10.7	72.2	1.99	439	13.8	33.4	0.92	168	15.2	14.1	0.39
35	41	2065	11.1	10.6	10.8	12.8	13.6	1.66	4.2	6.4	0.39	2.30	20.0	106	2.20	0.172	0.162	6.0	0.24	2261	1605	172	47	B	G	0.0552	114.0	2.76	1713	11.6	100.2	2.43	694	14.3	62.8	1.52	355	15.7	35.0	0.85
40	46	1900	12.3	11.7	11.9	13.9	14.9	1.80	4.4	7.3	0.37	2.69	22.6	104	2.29	0.165	0.154	6.4	0.27	2466	1605	181	51	C	G	0.0738	140.2	3.03	1681	12.5	127.6	2.76	889	14.9	94.6	2.04	547	16.2	62.6	1.35
45	51	1746	13.4	12.8	12.9	15.0	16.0	1.93	4.6	8.1	0.36	3.08	24.8	103	2.39	0.160	0.150	6.8	0.30	2635	1605	187	54	C	G	0.0946	165.1	3.22	1607	13.5	153.5	2.99	1012	15.5	125.5	2.45	706	16.7	93.0	1.81
50	56	1605	14.5	13.9	13.8	16.0	17.0	2.05	4.8	8.8	0.35	3.49	26.6	102	2.50	0.156	0.147	7.0	0.32	2772	1605	191	56	C	G	0.1173	188.2	3.34	1514	14.4	177.4	3.15	1074	16.2	153.9	2.73	817	17.2	123.0	2.19
55	61	1478	15.5	14.9	14.7	16.8	17.9	2.17	5.0	9.5	0.34	3.89	28.1	101	2.60	0.154	0.145	7.1	0.34	2881	1605	193	58	C	G	0.1416	209.3	3.42	1418	15.3	199.2	3.25	1093	16.9	179.3	2.93	884	17.8	151.0	2.46
60	66	1364	16.5	15.9	15.4	17.6	18.7	2.28	5.1	10.1	0.33	4.30	29.3	99	2.71	0.154	0.145	7.2	0.36	2968	1605	194	59	C	G	0.1674	228.4	3.45	1323	16.2	218.7	3.30	1082	17.6	201.7	3.04	916	18.4	176.3	2.66
65	71	1262	17.5	16.8	16.2	18.4	19.5	2.39	5.3	10.6	0.33	4.71	30.3	98	2.81	0.153	0.144	7.2	0.37	3035	1605	193	59	C	G	0.1944	245.3	3.44	1234	17.1	236.1	3.31	1054	18.3	221.3	3.10	922	19.0	198.6	2.79
70	76	1171	18.4	17.7	16.8	19.0	20.2	2.49	5.5	11.1	0.33	5.12	31.1	97	2.92	0.154	0.145	7.2	0.39	3088	1605	192	60	C	G	0.2223	260.3	3.41	1151	17.9	251.4	3.30	1016	18.9	238.3	3.12	912	19.6	218.1	2.86
75	81	1090	19.2	18.6	17.5	19.6	20.8	2.59	5.6	11.6	0.32	5.53	31.7	96	3.03	0.154	0.146	7.2	0.40	3128	1605	190	60	C	G	0.2508	273.4	3.36	1076	18.7	264.8	3.26	973	19.6	253.0	3.11	891	20.2	235.1	2.89
80	86	1018	20.1	19.4	18.0	20.2	21.3	2.68	5.8	12.0	0.32	5.93	32.2	95	3.13	0.155	0.147	7.2	0.40	3159	1605	188	60	C	G	0.2799	284.9	3.30	1008	19.5	276.6	3.21	929	20.3	265.7	3.08	863	20.9	249.7	2.89
85	91	954	20.9	20.2	18.6	20.7	21.9	2.77	5.9	12.3	0.32	6.33	32.6	93	3.24	0.156	0.148	7.1	0.41	3182	1605	186	60	C	G	0.3092	295.0	3.23	946	20.3	286.9	3.14	885	21.0	276.8	3.03	832	21.5	262.4	2.87
90	96	897	21.6	20.9	19.1	21.2	22.3	2.86	6.1	12.6	0.32	6.72	32.9	92	3.34	0.157	0.149	7.1	0.42	3200	1605	184	60	C	G	0.3388	303.9	3.16	891	21.0	295.9	3.07	843	21.6	286.4	2.97	801	22.1	273.4	2.84
95	101	846	22.4	21.6	19.5	21.6	22.8	2.94	6.2	12.9	0.32	7.11	33.2	91	3.44	0.159	0.151	7.0	0.42	3213	1605	181	60	C	G	0.3682	311.5	3.08	842	21.7	303.8	3.00	803	22.3	294.6	2.91	769	22.7	282.9	2.79
100	106	800	23.1	22.3	20.0	22.1	23.2	3.02	6.3	13.2	0.32	7.49	33.4	90	3.54	0.160	0.152	7.0	0.43	3223	1605	179	60	C	G	0.3976	318.1	2.99	797	22.4	310.4	2.92	766	22.9	301.7	2.84	738	23.3	291.0	2.74
105	111	759	23.7	23.0	20.4	22.4	23.6	3.09	6.4	13.4	0.32	7.86	33.5	89	3.63	0.162	0.154	6.9	0.43	3231	1605	177	60	C	G	0.4266	323.8	2.91	757	23.0	316.3	2.84	731	23.5	307.9	2.77	708	23.8	298.1	2.68
110	116	722	24.4	23.6	20.8	22.8	23.9	3.17	6.5	13.6	0.32	8.23	33.7	88	3.72	0.163	0.156	6.8	0.44	3237	1605	174	59	C	G	0.4554	328.8	2.83	720	23.7	321.4	2.76	699	24.1	313.2	2.69	680	24.4	304.1	2.62
115	121	689	25.0	24.2	21.1	23.1	24.3	3.23	6.7	13.8	0.32	8.59	33.8	87	3.81	0.165	0.157	6.8	0.44	3241	1605	172	59	C	G	0.4837	333.3	2.75	688	24.3	326.0	2.69	670	24.6	317.9	2.62	654	24.9	309.6	2.55
120	126	659	25.6	24.8	21.5	23.4	24.6	3.30	6.8	14.0	0.32	8.94	33.9	86	3.90	0.166	0.159	6.7	0.44	3245	1605	170	59	C	G	0.5115	337.1	2.67	658	24.9	329.9	2.61	644	25.2	322.1	2.55	630	25.4	314.2	2.49
125	131	632	26.1	25.4	21.8	23.7	24.8	3.36	6.9	14.2	0.32	9.28	33.9	85	3.98	0.168	0.160	6.6	0.45	3249	1605	168	59	C	G	0.5388	340.5	2.59	631	25.4	333.4	2.54	619	25.7	325.7	2.48	607	26.0	318.3	2.42
130	136	607	26.7	25.9	22.1	24.0	25.1	3.43	7.0	14.3	0.32	9.62	34.0	84	4.06	0.169	0.162	6.6	0.45	3252	1605	166	58	C	G	0.5654	343.2	2.52	606	26.0	336.2	2.47	596	26.2	328.5	2.41	586	26.5	321.7	2.36
135	141	585	27.2	26.5	22.3	24.3	25.4	3.48	7.0	14.4	0.33	9.95	34.1	84	4.13	0.170	0.163	6.5	0.45	3255	1605	164	58	C	G	0.5915	346.0	2.45	585	26.5	339.0	2.40	576	26.7	331.5	2.35	567	26.9	325.1	2.30
140	146	564	27.7	27.0	22.6	24.5	25.6	3.54	7.1	14.5	0.33	10.27	34.1	83	4.21	0.172	0.165	6.5	0.45	3259	1605	163	58	C	G	0.6167	347.8	2.38	564	27.0	341.0	2.33	556	27.2	333.5	2.28	549	27.4	327.5	2.24
145	151	545	28.2	27.4	22.9	24.7	25.8	3.60	7.2	14.6	0.33	10.58	34.1	82	4.28	0.173	0.166	6.4	0.46	3263	1605	161	58	C	G	0.6415	349.6	2.31	545	27.4	342.8	2.27	538	27.7	335.4	2.22	532	27.8	329.6	2.18
150	156	528	28.7	27.9	23.1	24.9	26.0	3.65	7.3	14.7	0.33	10.89	34.2	81	4.35	0.174	0.167	6.4	0.46	3267	1605	160	57	C	G	0.6653	351.3	2.25	528	27.9	344.6	2.20	522	28.1	337.2	2.16	516	28.3	331.7	2.12
155	161	513	29.2	28.4	23.3	25.2	26.2	3.70	7.4	14.7	0.33	11.19	34.2	80	4.42	0.176	0.168	6.3	0.46	3272	1605	158	57	C	G	0.6887	353.3	2.19	513	28.4	346.6	2.15	508	28.5	339.3	2.10	503	28.7	334.1	2.07
160	166	498	29.6	28.8	23.5	25.3	26.4	3.75	7.4	14.8	0.33	11.48	34.3	79	4.48	0.177	0.170	6.3	0.46	3277	1605	157	57	C	G	0.7112	354.2	2.13	498	28.8	347.5	2.09	494	29.0	340.3	2.05	489	29.1	335.3	2.02
165	171	485	30.0	29.2	23.7	25.5	26.6	3.79	7.5	14.8	0.33	11.76	34.3	79	4.54	0.178	0.171	6.3	0.46	3283	1605	156	57	C	G	0.7332	355.6	2.08	485	29.2	348.9	2.04	481	29.4	341.7	1.99	477	29.5	337.0	1.97
170	176	472	30.4	29.6	23.9	25.7	26.8	3.84	7.6	14.8	0.33	12.04	34.3	78	4.60	0.179	0.172	6.2	0.47	3289	1605	155	57	C	G	0.7542	356.0	2.02	472	29.6	349.4	1.98	469	29.8	342.3	1.94	465	29.9	337.7	1.92
175	181	461	30.8	30.0	24.1	25.9	26.9	3.88	7.6	14.9	0.34	12.32	34.4	77	4.66	0.180	0.173	6.2	0.47	3296	1605	154	57	C	G	0.7748	357.2	1.97	461	30.0	350.6	1.93	458	30.2	343.5	1.89	455	30.3	339.1	1.87
180	186	451	31.2	30.4	24.3	26.0	27.1	3.93	7.7	14.9	0.34	12.58	34.5	77	4.71	0.181	0.174	6.2	0.47	3303	1605	153	57	C	G	0.7947	358.4	1.92	451	30.4	351.8	1.89	448	30.5	344.7	1.85	445	30.7	340.4	1.83
SI = 17 m Initial Density = 4000 stems/ha																																								
5	11	3939	1.9	1.7	2.4	3.0	3.1	0.73	1.7	0.5	0.76	0.42	1.1	152	1.59	0.531	0.506	0.8	0.01	604	1939	39	16	A	G	0.0003	1.3	0.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	3799	3.6	3.4	3.9	4.9	5.2	0.87	2.4	1.3	0.63	0.60	3.9	122	1.62	0.333	0.314	2.1	0.04	936	1939	77	23	A	G	0.0021	8.0	0.49	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	3597	5.2	4.9	5.4	6.7	7.1	1.02	2.9	2.3	0.54	0.84	7.6	116	1.67	0.249	0.233	3.4	0.08	1309	1939	112	30	B	G	0.0061	22.0	1.03	238	8.5	3.3	0.16	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	3356	6.7	6.3	6.8	8.4	9.0	1.17	3.2	3.4	0.48	1.12	11.7	114	1.73	0.205	0.192	4.5	0.13	1680	1939	142	38	B	G	0.0127	42.5	1.62	1013	8.9	19.8	0.75	16	12.8	0.8	0.03	0	0.0	0.0	0.00
25	31	3095	8.0	7.6	8.1	10.0	10.7	1.32	3.5	4.5	0.43	1.43	15.6	112	1.80	0.180	0.168	5.5	0.18	2022	1939	167	44	B	G	0.0219	67.7	2.16	1646	9.5	45.8	1.46	134	13.1	8.2	0.26	23	14.7	1.6	0.05
30	36	2833	9.3	8.8	9.4	11.4	12.2	1.46	3.7	5.5	0.40	1.76	19.2	110	1.88	0.165	0.154	6.3	0.23	2320	1939	185	50	B	G	0.0337	95.4	2.63	1959	10.3	75.6	2.08	388	13.6	28.2	0.78	121	15.0	9.7	0.27
35	41	2581	10.5	10.0	10.6	12.7	13.6	1.59	3.9	6.4	0.37	2.11	22.3	108	1.97	0.155	0.144	6.9	0.27	2571	1939	199	54	C	G	0.0479	123.7	3.00	2050	11.1	106.2	2.57	683	14.0	58.3	1.41	304	15.4	28.4	0.69
40	46	2346	11.6	11.1	11.6	13.9	14.9	1.72	4.1	7.2	0.36	2.47	25.0	107	2.06	0.149	0.139	7.3	0.30	2776	1939	208	58	C	G	0.0645	151.4	3.27	2018	12.0	135.7	2.93	931	14.6	92.6	2.00	518	15.8	55.9	1.21
45	51	2132	12.7	12.2	12.6	14.9	16.0	1.85	4.3	8.0	0.34	2.84	27.2	106	2.17	0.145	0.135	7.6	0.33	2939	1939	213	60	C	G	0.0832	177.4	3.46	1925	12.9	163.2	3.18	1099	15.1	126.6	2.47	712	16.3	87.8	1.71
50	56	1939	13.8	13.2	13.5	15.9	17.0	1.97	4.5	8.7	0.34	3.22	29.0	104	2.27	0.143	0.134	7.8	0.35	3067	1939	216	62	C	G	0.1039	201.4	3.58	1805	13.8	188.4	3.35	1191	15.7	157.8	2.80	857	16.8	120.3	2.14
55	61	1768	14.8	14.2	14.4	16.8	17.9	2.08	4.7	9.4	0.33	3.60	30.5	103	2.38	0.142	0.133	7.9	0.37	3165	1939	216	64	C	G	0.1262	223.1	3.64	1679	14.7	211.0	3.44	1226	16.4	185.6	3.03	951	17.3	150.9	2.46
60	66	1617	15.8	15.2	15.2	17.6	18.7	2.20	4.9	10.0	0.32	3.99	31.6	101	2.49	0.142	0.133	8.0	0.39	3238	1939	216	65	C	G	0.1499	242.4	3.66	1557	15.5	231.2	3.49	1222	17.0	209.8	3.17	1001	17.9	178.5	2.69
65	71	1483	16.7	16.1	15.9	18.3	19.5	2.30	5.0	10.5	0.32	4.38	32.5	100	2.60	0.142	0.133	8.0	0.40	3292	1939	214	65	C	G	0.1749	259.4	3.64	1442	16.4	248.8	3.49	1193	17.7	230.6	3.23	1017	18.5	202.7	2.84
70	76	1366	17.6	17.0	16.5	18.9	20.2	2.40	5.2	11.0	0.32	4.77	33.3	99	2.71	0.143	0.134	7.9	0.42	3331	1939	212	65	C	G	0.2010	274.5	3.60	1337	17.2	264.4	3.47	1151	18.3	248.5	3.26	1012	19.1	223.9	2.93
75	81	1263	18.5	17.8	17.2	19.5	20.8	2.50	5.4	11.5	0.31	5.16	33.8	98	2.81	0.144	0.135	7.9	0.42	3358	1939	209	65	C	G	0.2277	287.6	3.54	1242	18.0	277.9	3.42	1101	19.0	263.9	3.25	991	19.7	242.1	2.98
80	86	1171	19.3	18.6	17.7	20.1	21.3	2.59	5.5	11.9	0.31	5.55	34.2	96	2.92	0.145	0.137	7.8	0.43	3376	1939	205	65	C	G	0.2551	298.7	3.46	1156	18.8	289.4	3.35	1048	19.7	276.8	3.21	961	20.3	257.4	2.98
85	91	1091	20.1	19.4	18.3	20.6	21.9	2.68	5.7	12.2	0.31	5.94	34.6	95	3.03	0.147	0.138	7.7	0.44	3387	1939	202	65	C	G	0.2830	308.7	3.38	1080	19.5	299.7	3.28	997	20.3	288.1	3.16	927	20.9	270.8	2.97
90	96	1020	20.8	20.1	18.8	21.1	22.3	2.77	5.8	12.6	0.31	6.32	34.8	94	3.13	0.148	0.140	7.6	0.44	3392	1939	199	64	C	G	0.3110	317.2	3.29	1012	20.3	308.5	3.20	946	21.0	297.7	3.09	890	21.5	282.2	2.93
95	101	957	21.6	20.9	19.2	21.5	22.8	2.85	5.9	12.9	0.31	6.70	35.0	93	3.23	0.150	0.142	7.5	0.45	3394	1939	196	64	C	G	0.3392	324.6	3.20	951	21.0	316.1	3.12	899	21.6	305.9	3.02	854	22.0	292.0	2.88
100	106	900	22.3	21.6	19.6	21.9	23.2	2.93	6.1	13.1	0.31	7.07	35.1	92	3.33	0.152	0.144	7.4	0.45	3394	1939	192	64	C	G	0.3672	330.5	3.11	895	21.6	322.3	3.03	854	22.2	312.7	2.94	817	22.6	300.1	2.82
105	111	850	22.9	22.2	20.1	22.3	23.6	3.01	6.2	13.4	0.31	7.43	35.1	91	3.43	0.154	0.145	7.3	0.45	3391	1939	189	63	C	G	0.3953	336.0	3.02	846	22.3	327.9	2.95	813	22.8	318.7	2.86	783	23.2	307.2	2.76
110	116	805	23.6	22.9	20.4	22.7	23.9	3.08	6.3	13.6	0.31	7.79	35.2	90	3.52	0.155	0.147	7.2	0.46	3387	1939	186	63	C	G	0.4230	340.5	2.93	802	22.9	332.6	2.86	775	23.4	323.7	2.78	750	23.7	313.2	2.69
115	121	765	24.2	23.5	20.8	23.0	24.3	3.15	6.4	13.8	0.31	8.14	35.2	89	3.62	0.157	0.149	7.2	0.46	3383	1939	183	62	C	G	0.4505	344.6	2.84	763	23.5	336.8	2.78	740	23.9	328.2	2.71	719	24.2	318.5	2.63
120	126	729	24.8	24.1	21.1	23.3	24.6	3.22	6.5	13.9	0.32	8.49	35.2	88	3.70	0.159	0.151	7.1	0.46	3379	1939	180	62	C	G	0.4775	348.1	2.76	727	24.1	340.4	2.70	709	24.5	332.0	2.63	691	24.8	323.1	2.56
125	131	696	25.4	24.6	21.4	23.6	24.8	3.28	6.6	14.1	0.32	8.83	35.2	87	3.79	0.161	0.153	7.0	0.46	3374	1939	178	61	C	G	0.5040	350.8	2.67	695	24.7	343.3	2.61	679	25.0	335.1	2.55	664	25.3	326.7	2.49
130	136	667	25.9	25.2	21.7	23.9	25.1	3.34	6.7	14.2	0.32	9.16	35.2	86	3.87	0.162	0.154	6.9	0.46	3370	1939	175	61	C	G	0.5301	353.6	2.59	666	25.2	346.2	2.54	653	25.5	338.1	2.48	640	25.8	330.3	2.42
135	141	640	26.5	25.7	22.0	24.1	25.4	3.40	6.8	14.3	0.32	9.48	35.2	85	3.95	0.164	0.156	6.8	0.46	3367	1939	173	61	C	G	0.5556	355.6	2.52	639	25.7	348.3	2.47	628	26.0	340.3	2.41	617	26.2	333.1	2.36
140	146	615	27.0	26.2	22.3	24.4	25.6	3.46	6.9	14.4	0.32	9.80	35.1	84	4.03	0.165	0.158	6.8	0.47	3364	1939	171	60	C	G	0.5805	357.0	2.44	614	26.3	349.8	2.39	605	26.5	342.0	2.34	595	26.7	335.1	2.29
145	151	593	27.5	26.7	22.5	24.6	25.8	3.51	7.0	14.5	0.32	10.11	35.2	83	4.11	0.167	0.159	6.7	0.47	3361	1939	169	60	C	G	0.6047	358.6	2.37	593	26.7	351.5	2.32	584	27.0	343.8	2.27	576	27.2	337.3	2.23
150	156	573	28.0	27.2	22.8	24.8	26.0	3.57	7.1	14.6	0.32	10.42	35.2	82	4.18	0.168	0.161	6.7	0.47	3360	1939	167	60	C	G	0.6284	360.1	2.30	573	27.2	353.1	2.26	565	27.4	345.4	2.21	558	27.6	339.3	2.17
155	161	554	28.4	27.6	23.0	25.0	26.2	3.62	7.2	14.7	0.33	10.71	35.2	81	4.25	0.170	0.162	6.6	0.47	3359	1939	165	59	C	G	0.6514	360.9	2.24	554	27.6	354.0	2.19	547	27.9	346.3	2.15	541	28.0	340.6	2.11
160	166	537	28.9	28.1	23.2	25.2	26.4	3.67	7.2	14.7	0.33	11.00	35.2	81	4.32	0.171	0.163	6.5	0.47	3359	1939	164	59	C	G	0.6739	361.9	2.18	537	28.1	355.0	2.13	531	28.3	347.4	2.09	526	28.4	342.0	2.06
165	171	521	29.3	28.5	23.4	25.4	26.6	3.72	7.3	14.8	0.33	11.29	35.1	80	4.38	0.172	0.165	6.5	0.47	3359	1939	162	59	C	G	0.6956	362.4	2.12	521	28.5	355.6	2.08	516	28.7	348.1	2.03	511	28.9	342.9	2.00
170	176	507	29.7	28.9	23.6	25.6	26.8	3.76	7.4	14.8	0.33	11.57	35.2	79	4.44	0.174	0.166	6.5	0.47	3361	1939	161	59	C	G	0.7168	363.4	2.06	507	28.9	356.6	2.02	503	29.1	349.2	1.98	498	29.2	344.1	1.95
175	181	494	30.1	29.3	23.8	25.7	26.9	3.81	7.4	14.8	0.33	11.84	35.2	78	4.50	0.175	0.167	6.4	0.48	3363	1939	160	58	C	G	0.7372	364.2	2.01	494	29.3	357.4	1.97	490	29.5	350.0	1.93	486	29.6	345.2	1.90
180	186	481	30.5	29.7	23.9	25.9	27.1	3.85	7.5	14.8	0.33	12.11	35.2	78	4.56	0.176	0.168	6.4	0.48	3366	1939	158	58	C	G	0.7570	364.1	1.95	481	29.7	357.4	1.92	478	29.8	350.1	1.88	474	30.0	345.4	1.85

Table A85. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

		Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
Bh age	Total age	N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
		SI = 17 m Initial Density = 5000 stems/ha																																						
5	11	4913	1.7	1.6	2.4	3.0	3.1	0.72	1.7	0.5	0.75	0.41	1.2	159	1.43	0.476	0.453	0.9	0.01	732	2246	46	20	A	G	0.0003	1.4	0.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	4716	3.4	3.2	3.8	4.9	5.2	0.85	2.3	1.3	0.62	0.58	4.3	127	1.46	0.300	0.282	2.3	0.05	1104	2246	89	27	A	G	0.0018	8.7	0.53	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	4434	4.9	4.6	5.3	6.7	7.1	0.99	2.7	2.4	0.52	0.80	8.4	120	1.50	0.225	0.210	3.8	0.09	1514	2246	129	35	B	G	0.0053	23.7	1.11	184	8.4	2.4	0.11	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	4101	6.3	5.9	6.7	8.4	9.0	1.14	3.0	3.4	0.46	1.05	12.8	116	1.56	0.186	0.174	5.1	0.15	1914	2246	163	43	B	G	0.0111	45.7	1.74	1007	8.7	18.3	0.70	8	12.7	0.4	0.02	0	0.0	0.0	0.00
25	31	3747	7.6	7.2	8.0	9.9	10.7	1.27	3.3	4.5	0.42	1.34	17.1	114	1.63	0.164	0.153	6.2	0.20	2275	2246	189	50	C	G	0.0193	72.5	2.32	1785	9.3	45.6	1.46	95	13.0	5.7	0.18	13	14.6	0.9	0.03
30	36	3397	8.8	8.4	9.2	11.4	12.2	1.41	3.5	5.4	0.39	1.64	20.9	112	1.72	0.151	0.140	7.0	0.25	2584	2246	209	56	C	G	0.0299	101.7	2.80	2203	10.0	77.5	2.14	333	13.4	23.4	0.64	86	14.9	6.7	0.18
35	41	3065	10.0	9.5	10.4	12.7	13.6	1.54	3.7	6.3	0.36	1.97	24.2	111	1.81	0.143	0.133	7.6	0.29	2838	2246	222	60	C	G	0.0428	131.3	3.18	2338	10.8	110.1	2.67	650	13.8	53.2	1.29	254	15.2	22.9	0.55
40	46	2761	11.1	10.6	11.4	13.8	14.9	1.67	3.9	7.2	0.35	2.31	26.9	109	1.90	0.138	0.128	8.1	0.33	3040	2246	230	64	C	G	0.0580	160.1	3.46	2312	11.6	141.3	3.05	940	14.3	89.0	1.92	477	15.6	49.3	1.07
45	51	2488	12.2	11.7	12.4	14.9	16.0	1.79	4.1	7.9	0.34	2.66	29.2	107	2.00	0.135	0.125	8.3	0.36	3196	2246	235	66	C	G	0.0752	187.0	3.65	2206	12.5	170.3	3.32	1150	14.8	125.4	2.45	696	16.1	81.8	1.59
50	56	2246	13.3	12.7	13.3	15.8	17.0	1.91	4.3	8.7	0.33	3.02	31.0	106	2.11	0.133	0.124	8.5	0.38	3314	2246	237	68	C	G	0.0942	211.6	3.76	2064	13.3	196.5	3.49	1274	15.4	159.1	2.83	870	16.5	115.8	2.06
55	61	2033	14.3	13.7	14.2	16.7	17.9	2.02	4.5	9.3	0.32	3.39	32.4	104	2.22	0.133	0.124	8.6	0.40	3401	2246	236	69	C	G	0.1149	233.6	3.81	1914	14.2	219.9	3.59	1328	16.0	188.9	3.08	990	17.0	148.5	2.42
60	66	1847	15.2	14.6	14.9	17.5	18.7	2.13	4.6	9.9	0.32	3.76	33.5	103	2.33	0.133	0.124	8.6	0.42	3463	2246	234	69	C	G	0.1371	253.2	3.82	1767	15.0	240.5	3.63	1334	16.6	214.8	3.24	1059	17.6	178.2	2.69
65	71	1684	16.1	15.5	15.6	18.2	19.5	2.24	4.8	10.4	0.31	4.13	34.4	102	2.44	0.134	0.125	8.6	0.43	3506	2246	231	70	C	G	0.1606	270.4	3.79	1629	15.8	258.5	3.63	1308	17.2	236.8	3.32	1089	18.1	204.3	2.87
70	76	1542	17.0	16.4	16.3	18.9	20.2	2.34	5.0	10.9	0.31	4.51	35.0	100	2.55	0.135	0.126	8.5	0.44	3533	2246	228	70	C	G	0.1850	285.3	3.74	1504	16.6	274.1	3.59	1264	17.9	255.6	3.35	1090	18.7	226.8	2.97
75	81	1418	17.9	17.2	16.9	19.5	20.8	2.43	5.1	11.4	0.31	4.89	35.5	99	2.66	0.136	0.128	8.4	0.45	3549	2246	224	69	C	G	0.2104	298.3	3.67	1391	17.4	287.7	3.54	1209	18.5	271.5	3.34	1072	19.2	246.1	3.03
80	86	1310	18.7	18.0	17.5	20.0	21.3	2.53	5.3	11.8	0.31	5.26	35.9	98	2.76	0.138	0.129	8.3	0.45	3556	2246	220	69	C	G	0.2364	309.7	3.59	1290	18.2	299.5	3.47	1152	19.2	285.1	3.30	1043	19.8	262.6	3.04
85	91	1214	19.5	18.8	18.0	20.5	21.9	2.61	5.5	12.1	0.31	5.64	36.1	97	2.87	0.140	0.131	8.2	0.46	3556	2246	216	68	C	G	0.2629	319.1	3.50	1200	18.9	309.4	3.39	1093	19.8	296.4	3.25	1006	20.4	276.4	3.03
90	96	1130	20.2	19.5	18.5	21.0	22.3	2.70	5.6	12.5	0.31	6.01	36.3	95	2.97	0.142	0.133	8.1	0.46	3552	2246	211	68	C	G	0.2897	327.4	3.40	1119	19.7	318.0	3.30	1036	20.4	306.0	3.18	966	21.0	288.2	2.99
95	101	1056	20.9	20.2	18.9	21.4	22.8	2.78	5.7	12.8	0.31	6.37	36.4	94	3.08	0.144	0.135	7.9	0.46	3545	2246	207	67	C	G	0.3167	334.4	3.30	1048	20.4	325.4	3.21	982	21.0	314.2	3.10	926	21.5	298.3	2.95
100	106	991	21.6	20.9	19.4	21.8	23.2	2.86	5.9	13.0	0.31	6.73	36.5	93	3.18	0.145	0.137	7.8	0.47	3536	2246	203	67	C	G	0.3438	340.7	3.21	985	21.0	331.9	3.12	932	21.6	321.3	3.02	886	22.1	306.9	2.89
105	111	932	22.3	21.6	19.8	22.2	23.6	2.94	6.0	13.3	0.31	7.09	36.4	92	3.28	0.147	0.139	7.7	0.47	3525	2246	199	66	C	G	0.3707	345.5	3.10	927	21.7	337.0	3.03	885	22.2	327.0	2.94	847	22.6	313.9	2.82
110	116	880	23.0	22.2	20.1	22.6	23.9	3.01	6.1	13.5	0.31	7.44	36.4	91	3.37	0.149	0.141	7.6	0.47	3514	2246	196	65	C	G	0.3976	349.9	3.01	876	22.3	341.5	2.94	842	22.8	332.0	2.85	811	23.2	320.1	2.75
115	121	834	23.6	22.9	20.5	22.9	24.3	3.08	6.2	13.7	0.31	7.79	36.4	90	3.46	0.151	0.143	7.5	0.47	3502	2246	193	65	C	G	0.4242	353.8	2.92	831	22.9	345.6	2.85	803	23.4	336.4	2.77	777	23.7	325.5	2.68
120	126	792	24.2	23.4	20.8	23.2	24.6	3.15	6.4	13.9	0.31	8.13	36.4	89	3.55	0.153	0.145	7.4	0.47	3491	2246	189	64	C	G	0.4505	356.8	2.83	790	23.5	348.8	2.76	766	23.9	339.8	2.69	744	24.2	329.7	2.61
125	131	754	24.8	24.0	21.1	23.5	24.8	3.21	6.5	14.0	0.31	8.46	36.3	88	3.64	0.155	0.147	7.3	0.47	3480	2246	186	64	C	G	0.4764	359.2	2.74	752	24.1	351.3	2.68	733	24.4	342.6	2.61	714	24.7	333.3	2.54
130	136	720	25.3	24.6	21.4	23.8	25.1	3.27	6.6	14.1	0.31	8.79	36.2	87	3.73	0.157	0.148	7.2	0.48	3470	2246	183	63	C	G	0.5018	361.3	2.65	719	24.6	353.6	2.59	702	24.9	345.1	2.53	686	25.2	336.4	2.47
135	141	689	25.9	25.1	21.7	24.0	25.4	3.33	6.7	14.3	0.32	9.11	36.2	86	3.81	0.158	0.150	7.1	0.48	3460	2246	180	63	C	G	0.5267	362.9	2.57	688	25.1	355.3	2.51	674	25.4	347.0	2.46	660	25.7	338.9	2.40
140	146	661	26.4	25.6	22.0	24.3	25.6	3.39	6.8	14.4	0.32	9.42	36.1	85	3.89	0.160	0.152	7.0	0.48	3452	2246	178	62	C	G	0.5511	364.3	2.49	660	25.6	356.8	2.44	648	25.9	348.7	2.38	637	26.1	341.2	2.33
145	151	636	26.9	26.1	22.2	24.5	25.8	3.45	6.9	14.5	0.32	9.73	36.1	84	3.97	0.162	0.154	7.0	0.48	3444	2246	176	62	C	G	0.5752	365.8	2.42	635	26.1	358.4	2.37	625	26.4	350.3	2.32	615	26.6	343.2	2.27
150	156	613	27.4	26.6	22.5	24.7	26.0	3.50	6.9	14.5	0.32	10.03	36.0	83	4.04	0.163	0.155	6.9	0.48	3438	2246	173	61	C	G	0.5985	366.9	2.35	613	26.6	359.5	2.30	604	26.8	351.6	2.25	595	27.0	344.9	2.21
155	161	592	27.8	27.1	22.7	24.9	26.2	3.55	7.0	14.6	0.32	10.33	36.0	82	4.11	0.165	0.157	6.8	0.48	3432	2246	171	61	C	G	0.6213	367.8	2.28	592	27.1	360.5	2.24	584	27.3	352.7	2.19	576	27.5	346.3	2.15
160	166	572	28.3	27.5	22.9	25.1	26.4	3.60	7.1	14.7	0.32	10.62	35.9	82	4.18	0.166	0.158	6.8	0.48	3428	2246	169	61	C	G	0.6434	368.0	2.21	572	27.5	360.8	2.17	565	27.7	353.1	2.12	558	27.9	347.1	2.09
165	171	554	28.7	27.9	23.1	25.3	26.6	3.65	7.2	14.7	0.32	10.90	35.9	81	4.25	0.168	0.160	6.7	0.48	3424	2246	168	60	C	G	0.6648	368.3	2.15	554	27.9	361.3	2.11	548	28.1	353.6	2.06	542	28.3	347.9	2.03
170	176	538	29.1	28.4	23.3	25.5	26.8	3.70	7.3	14.7	0.33	11.18	35.9	80	4.31	0.169	0.161	6.6	0.48	3422	2246	166	60	C	G	0.6859	369.0	2.09	538	28.4	362.0	2.05	533	28.5	354.3	2.01	527	28.7	348.9	1.98
175	181	523	29.5	28.8	23.5	25.6	26.9	3.74	7.3	14.8	0.33	11.45	35.9	79	4.37	0.171	0.162	6.6	0.48	3421	2246	165	60	C	G	0.7063	369.4	2.04	523	28.8	362.4	2.00	518	28.9	354.8	1.96	513	29.1	349.5	1.93
180	186	509	29.9	29.2	23.6	25.8	27.1	3.79	7.4	14.8	0.33	11.72	35.9	78	4.43	0.172	0.164	6.6	0.48	3420	2246	163	60	C	G	0.7259	369.5	1.98	509	29.2	362.6	1.95	505	29.3	355.0	1.91	500	29.5	350.0	1.88
		SI = 17 m Initial Density = 6000 stems/ha																																						
5	11	5886	1.6	1.5	2.3	3.0	3.1	0.71	1.6	0.6	0.74	0.40	1.3	166	1.30	0.436	0.414	1.0	0.01	859	2533	53	24	A	G	0.0003	1.5	0.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	5626	3.3	3.0	3.8	4.9	5.2	0.84	2.2	1.4	0.61	0.56	4.7	130	1.33	0.275	0.258	2.6	0.05	1265	2533	101	31	B	G	0.0016	9.2	0.56	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	5258	4.7	4.4	5.2	6.7	7.1	0.97	2.6	2.4	0.51	0.76	9.1	122	1.38	0.207	0.193	4.2	0.10	1706	2533	145	40	B	G	0.0048	25.2	1.18	140	8.3	1.8	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	4828	6.0	5.7	6.6	8.4	9.0	1.11	2.9	3.4	0.45	1.00	13.9	119	1.44	0.172	0.160	5.6	0.16	2130	2533	181	48	B	G	0.0100	48.4	1.84	973	8.6	16.7	0.64	4	12.6	0.2	0.01	0	0.0	0.0	0.00
25	31	4378	7.3	6.9	7.9	9.9	10.7	1.24	3.1	4.4	0.41	1.27	18.3	116	1.51	0.152	0.141	6.8	0.22	2506	2533	210	55	C	G	0.0175	76.5	2.45	1879	9.1	44.8	1.43	68	12.9	4.0	0.13	7	14.5	0.5	0.02
30	36	3937	8.5	8.1	9.1	11.3	12.2	1.37	3.3	5.4	0.38	1.55	22.3	114	1.59	0.141	0.130	7.7	0.27	2821	2533	230	61	C	G	0.0272	106.9	2.95	2400	9.8	78.4	2.16	282	13.3	19.3	0.53	61	14.8	4.7	0.13
35	41	3526	9.6	9.2	10.2	12.6	13.6	1.50	3.5	6.3	0.35	1.86	25.8	112	1.68	0.134	0.124	8.3	0.31	3075	2533	243	66	C	G	0.0390	137.6	3.33	2588	10.5	112.7	2.73	607	13.6	48.0	1.16	210	15.1	18.4	0.45
40	46	3153	10.7	10.2	11.3	13.8	14.9	1.62	3.7	7.1	0.34	2.18	28.6	111	1.78	0.129	0.120	8.7	0.35	3272	2533	251	69	C	G	0.0530	167.1	3.61	2574	11.3	145.5	3.14	929	14.1	84.6	1.83	432	15.5	43.1	0.93
45	51	2823	11.8	11.3	12.2	14.8	16.0	1.74	3.9	7.9	0.33	2.52	30.9	109	1.88	0.127	0.118	9.0	0.38	3421	2533	255	71	D	G	0.0690	194.7	3.80	2459	12.1	175.6	3.42	1176	14.6	122.8	2.39	667	15.9	75.5	1.47
50	56	2533	12.8	12.3	13.1	15.8	17.0	1.86	4.1	8.6	0.32	2.86	32.7	107	1.99	0.126	0.117	9.1	0.40	3530	2533	255	72	D	G	0.0867	219.7	3.90	2300	12.9	202.7	3.60	1331	15.1	158.6	2.82	867	16.3	110.6	1.96
55	61	2280	13.8	13.2	14.0	16.6	17.9	1.97	4.3	9.2	0.31	3.21	34.1	106	2.09	0.126	0.117	9.2	0.42	3607	2533	254	73	D	G	0.1062	242.1	3.95	2127	13.8	226.7	3.70	1407	15.7	190.3	3.11	1011	16.8	144.9	2.36
60	66	2061	14.7	14.1	14.7	17.4	18.7	2.08	4.5	9.8	0.31	3.57	35.2	104	2.20	0.126	0.118	9.2	0.44	3658	2533	251	74	D	G	0.1271	261.9	3.95	1958	14.6	247.8	3.74	1425	16.3	217.8	3.29	1099	17.3	176.3	2.66
65	71	1871	15.6	15.0	15.4	18.1	19.5	2.18	4.6	10.3	0.31	3.94	36.0	103	2.31	0.128	0.119	9.1	0.45	3690	2533	247	74	D	G	0.1492	279.2	3.92	1801	15.4	266.2	3.73	1405	16.9	241.1	3.38	1143	17.8	204.1	2.86
70	76	1706	16.5	15.9	16.1	18.8	20.2	2.28	4.8	10.8	0.30	4.30	36.6	102	2.42	0.129	0.120	9.0	0.46	3707	2533	242	73	D	G	0.1725	294.2	3.86	1657	16.2	282.0	3.70	1361	17.5	260.7	3.42	1152	18.3	228.0	2.99
75	81	1563	17.4	16.7	16.7	19.4	20.8	2.38	5.0	11.3	0.30	4.66	37.0	100	2.53	0.130	0.122	8.9	0.47	3713	2533	237	73	D	G	0.1966	307.3	3.78	1528	17.0	295.8	3.64	1305	18.1	277.4	3.41	1139	18.9	248.5	3.06
80	86	1438	18.2	17.5	17.2	19.9	21.3	2.47	5.1	11.7	0.30	5.03	37.3	99	2.64	0.132	0.124	8.7	0.47	3711	2533	232	72	D	G	0.2214	318.4	3.69	1413	17.7	307.5	3.56	1243	18.8	291.3	3.38	1111	19.4	265.8	3.08
85	91	1329	18.9	18.3	17.8	20.5	21.9	2.56	5.3	12.0	0.30	5.39	37.5	98	2.74	0.134	0.125	8.6	0.48	3703	2533	228	72	D	G	0.2467	327.9	3.59	1311	18.5	317.5	3.48	1180	19.4	303.0	3.32	1074	20.0	280.4	3.07
90	96	1233	19.7	19.0	18.2	20.9	22.3	2.64	5.4	12.4	0.30	5.75	37.6	96	2.85	0.136	0.127	8.5	0.48	3691	2533	223	71	D	G	0.2725	336.0	3.49	1219	19.2	326.0	3.39	1117	20.0	312.8	3.25	1033	20.6	292.8	3.04
95	101	1149	20.4	19.7	18.7	21.4	22.8	2.72	5.6	12.7	0.30	6.11	37.6	95	2.95	0.138	0.129	8.3	0.48	3676	2533	218	70	D	G	0.2984	342.9	3.39	1139	19.9	333.3	3.29	1058	20.6	321.1	3.17	990	21.1	303.2	2.99
100	106	1074	21.1	20.4	19.1	21.8	23.2	2.80	5.7	12.9	0.30	6.46	37.6	94	3.05	0.140	0.132	8.2	0.48	3659	2533	213	69	C	G	0.3246	348.6	3.28	1066	20.5	339.3	3.19	1002	21.2	327.9	3.09	947	21.7	311.8	2.93
105	111	1008	21.8	21.1	19.5	22.1	23.6	2.88	5.8	13.2	0.30	6.81	37.6	93	3.15	0.142	0.134	8.1	0.48	3641	2533	209	69	C	G	0.3507	353.5	3.18	1002	21.2	344.4	3.09	951	21.8	333.7	3.00	905	22.2	319.2	2.87
110	116	949	22.4	21.7	19.9	22.5	23.9	2.95	6.0	13.4	0.30	7.15	37.5	92	3.25	0.144	0.136	7.9	0.48	3623	2533	205	68	C	G	0.3766	357.4	3.07	944	21.8	348.7	3.00	903	22.3	338.5	2.91	865	22.7	325.3	2.80
115	121	897	23.1	22.3	20.2	22.8	24.3	3.02	6.1	13.6	0.31	7.49	37.4	91	3.34	0.146	0.138	7.8	0.49	3606	2533	201	67	C	G	0.4025	361.0	2.98	893	22.4	352.5	2.91	859	22.9	342.7	2.83	828	23.3	330.6	2.73
120	126	850	23.7	22.9	20.6	23.1	24.6	3.09	6.2	13.8	0.31	7.83	37.3	90	3.43	0.148	0.140	7.7	0.49	3589	2533	197	67	C	G	0.4280	363.8	2.88	847	23.0	355.5	2.82	819	23.4	346.1	2.74	793	23.8	335.0	2.65
125	131	808	24.2	23.5	20.9	23.4	24.8	3.15	6.3	13.9	0.31	8.15	37.3	89	3.52	0.150	0.142	7.6	0.49	3572	2533	194	66	C	G	0.4533	366.3	2.79	806	23.5	358.1	2.73	782	23.9	348.9	2.66	760	24.3	338.7	2.58
130	136	770	24.8	24.0	21.2	23.7	25.1	3.21	6.4	14.1	0.31	8.48	37.2	88	3.60	0.152	0.144	7.5	0.49	3557	2533	190	65	C	G	0.4782	368.2	2.70	768	24.1	360.1	2.64	748	24.5	351.2	2.58	730	24.7	341.8	2.51
135	141	735	25.3	24.6	21.4	23.9	25.4	3.27	6.5	14.2	0.31	8.79	37.0	87	3.69	0.154	0.145	7.4	0.49	3542	2533	187	65	C	G	0.5026	369.4	2.61	734	24.6	361.5	2.56	717	24.9	352.8	2.50	701	25.2	344.1	2.44
140	146	704	25.8	25.1	21.7	24.2	25.6	3.33	6.6	14.3	0.31	9.10	36.9	86	3.77	0.156	0.147	7.3	0.49	3529	2533	184	64	C	G	0.5266	370.7	2.53	703	25.1	362.9	2.48	689	25.4	354.5	2.42	675	25.7	346.2	2.37
145	151	676	26.3	25.6	22.0	24.4	25.8	3.39	6.7	14.4	0.31	9.41	36.9	85	3.85	0.158	0.149	7.2	0.49	3517	2533	182	64	C	G	0.5500	371.8	2.46	675	25.6	364.2	2.41	663	25.9	355.9	2.35	651	26.1	348.2	2.30
150	156	650	26.8	26.1	22.2	24.6	26.0	3.44	6.8	14.5	0.32	9.70	36.8	84	3.92	0.159	0.151	7.1	0.49	3507	2533	179	63	C	G	0.5731	372.5	2.38	649	26.1	364.9	2.33	639	26.3	356.7	2.28	628	26.6	349.4	2.24
155	161	626	27.3	26.5	22.4	24.8	26.2	3.49	6.9	14.6	0.32	10.00	36.7	83	4.00	0.161	0.152	7.0	0.49	3497	2533	177	63	C	G	0.5955	372.8	2.31	626	26.5	365.3	2.26	616	26.8	357.2	2.21	607	27.0	350.4	2.17
160	166	605	27.8	27.0	22.6	25.0	26.4	3.54	7.0	14.6	0.32	10.28	36.6	82	4.07	0.162	0.154	6.9	0.49	3489	2533	175	62	C	G	0.6174	373.5	2.25	605	27.0	366.1	2.20	597	27.2	358.2	2.15	588	27.4	351.6	2.11
165	171	585	28.2	27.4	22.8	25.2	26.6	3.59	7.0	14.7	0.32	10.57	36.5	82	4.13	0.164	0.156	6.8	0.49	3482	2533	173	62	C	G	0.6386	373.6	2.18	585	27.4	366.3	2.14	578	27.6	358.4	2.09	570	27.8	352.2	2.06
170	176	567	28.6	27.8	23.0	25.4	26.8	3.64	7.1	14.7	0.32	10.84	36.5	81	4.20	0.165	0.157	6.8	0.49	3476	2533	171	61	C	G	0.6594	373.9	2.12	567	27.8	366.7	2.08	561	28.0	358.9	2.04	554	28.2	353.0	2.00
175	181	550	29.0	28.3	23.2	25.5	26.9	3.69	7.2	14.7	0.32	11.11	36.4	80	4.26	0.167	0.158	6.8	0.49	3471	2533	169	61	C	G	0.6796	373.8	2.06	550	28.3	366.6	2.02	544	28.4	358.8	1.98	539	28.6	353.3	1.95
180	186	534	29.4	28.6	23.4	25.7	27.1	3.73	7.2	14.7	0.33	11.38	36.4	79	4.33	0.168	0.160	6.7	0.49	3468	2533	167	61	C	G	0.6993	373.4	2.00	534	28.6	366.3	1.97	529	28.8	358.6	1.92	524	29.0	353.3	1.90

Table A86. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 17 m Initial Density = 7000 stems/ha																																								
5	11	6857	1.6	1.5	2.3	3.0	3.1	0.71	1.6	0.6	0.73	0.39	1.3	172	1.21	0.404	0.383	1.1	0.02	983	2805	59	27	A	G	0.0002	1.5	0.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	6531	3.1	2.9	3.7	4.8	5.2	0.82	2.1	1.4	0.59	0.54	5.0	133	1.24	0.255	0.240	2.8	0.06	1420	2805	112	35	B	G	0.0015	9.7	0.60	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	6072	4.5	4.2	5.2	6.7	7.1	0.95	2.5	2.4	0.50	0.73	9.8	125	1.28	0.193	0.180	4.6	0.11	1888	2805	160	45	B	G	0.0044	26.5	1.24	106	8.2	1.3	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	5542	5.8	5.5	6.5	8.3	9.0	1.08	2.8	3.4	0.44	0.96	14.8	121	1.34	0.161	0.149	6.1	0.17	2331	2805	199	53	C	G	0.0091	50.7	1.93	924	8.5	15.2	0.58	2	12.4	0.1	0.00	0	0.0	0.0	0.00
25	31	4991	7.0	6.7	7.8	9.9	10.7	1.21	3.0	4.4	0.40	1.21	19.5	118	1.42	0.143	0.132	7.3	0.23	2718	2805	228	60	C	G	0.0160	79.9	2.55	1937	9.0	43.7	1.40	48	12.8	2.8	0.09	4	14.4	0.3	0.01
30	36	4460	8.2	7.8	9.0	11.3	12.2	1.34	3.2	5.4	0.37	1.48	23.6	116	1.50	0.132	0.122	8.2	0.29	3037	2805	249	66	C	G	0.0250	111.3	3.07	2562	9.6	78.6	2.17	236	13.2	15.8	0.44	44	14.7	3.3	0.09
35	41	3969	9.3	8.9	10.1	12.6	13.6	1.47	3.4	6.2	0.35	1.77	27.2	114	1.59	0.126	0.117	8.9	0.33	3289	2805	262	70	D	G	0.0360	142.8	3.46	2806	10.3	114.5	2.77	559	13.5	43.1	1.04	172	15.0	14.8	0.36
40	46	3529	10.4	9.9	11.1	13.7	14.9	1.59	3.6	7.0	0.33	2.08	30.0	112	1.68	0.123	0.113	9.3	0.37	3481	2805	269	74	D	G	0.0491	173.1	3.74	2811	11.0	148.5	3.21	904	13.9	79.9	1.73	387	15.3	37.6	0.81
45	51	3141	11.4	10.9	12.1	14.8	16.0	1.70	3.8	7.8	0.32	2.40	32.3	110	1.78	0.121	0.112	9.6	0.40	3622	2805	272	76	D	G	0.0640	201.1	3.92	2690	11.8	179.7	3.50	1184	14.4	119.3	2.33	632	15.7	69.3	1.35
50	56	2805	12.4	11.9	13.0	15.7	17.0	1.82	4.0	8.5	0.31	2.74	34.1	109	1.89	0.120	0.111	9.7	0.42	3722	2805	272	77	D	G	0.0807	226.5	4.02	2516	12.6	207.6	3.69	1370	14.9	156.9	2.79	852	16.1	105.0	1.87
55	61	2514	13.4	12.8	13.8	16.6	17.9	1.93	4.2	9.1	0.31	3.07	35.5	107	1.99	0.120	0.111	9.7	0.44	3789	2805	269	77	D	G	0.0991	249.2	4.07	2325	13.4	232.2	3.79	1468	15.5	190.4	3.11	1018	16.6	140.6	2.29
60	66	2263	14.3	13.8	14.5	17.4	18.7	2.03	4.3	9.7	0.30	3.42	36.6	105	2.10	0.121	0.112	9.7	0.46	3831	2805	265	77	D	G	0.1189	269.1	4.06	2137	14.2	253.7	3.83	1500	16.0	219.3	3.31	1126	17.1	173.5	2.62
65	71	2047	15.2	14.6	15.2	18.1	19.5	2.14	4.5	10.2	0.30	3.77	37.3	104	2.21	0.122	0.113	9.6	0.47	3854	2805	261	77	D	G	0.1400	286.5	4.02	1961	15.0	272.4	3.82	1487	16.6	243.9	3.42	1183	17.6	202.7	2.84
70	76	1860	16.1	15.5	15.9	18.7	20.2	2.23	4.7	10.7	0.30	4.12	37.9	103	2.32	0.124	0.115	9.4	0.48	3862	2805	255	77	D	G	0.1621	301.5	3.95	1800	15.8	288.4	3.78	1446	17.2	264.4	3.47	1203	18.1	227.9	2.99
75	81	1698	16.9	16.3	16.5	19.3	20.8	2.33	4.8	11.2	0.30	4.48	38.2	101	2.43	0.126	0.117	9.3	0.48	3859	2805	249	76	D	G	0.1852	314.4	3.87	1655	16.6	302.1	3.72	1389	17.8	281.6	3.46	1195	18.6	249.4	3.07
80	86	1558	17.7	17.1	17.0	19.9	21.3	2.42	5.0	11.6	0.30	4.83	38.5	100	2.53	0.127	0.119	9.1	0.49	3849	2805	244	75	D	G	0.2089	325.5	3.77	1527	17.3	313.9	3.64	1324	18.4	296.0	3.43	1170	19.1	267.7	3.10
85	91	1436	18.5	17.9	17.5	20.4	21.9	2.51	5.1	11.9	0.30	5.19	38.6	99	2.64	0.129	0.121	9.0	0.49	3833	2805	238	74	D	G	0.2333	335.0	3.67	1414	18.0	323.9	3.55	1257	19.0	308.0	3.37	1134	19.7	283.0	3.10
90	96	1329	19.3	18.6	18.0	20.9	22.3	2.59	5.3	12.3	0.30	5.54	38.7	97	2.74	0.132	0.123	8.8	0.49	3813	2805	233	74	D	G	0.2581	343.0	3.56	1312	18.7	332.4	3.45	1191	19.6	318.1	3.30	1092	20.2	295.9	3.07
95	101	1235	20.0	19.3	18.5	21.3	22.8	2.67	5.4	12.6	0.30	5.88	38.7	96	2.85	0.134	0.125	8.7	0.50	3792	2805	227	73	D	G	0.2831	349.6	3.45	1222	19.4	339.5	3.35	1127	20.2	326.4	3.22	1047	20.8	306.6	3.03
100	106	1152	20.7	20.0	18.9	21.7	23.2	2.75	5.6	12.9	0.30	6.23	38.6	95	2.95	0.136	0.127	8.5	0.50	3768	2805	222	72	D	G	0.3083	355.2	3.34	1142	20.1	345.4	3.25	1067	20.8	333.3	3.14	1001	21.3	315.5	2.97
105	111	1079	21.3	20.6	19.3	22.1	23.6	2.83	5.7	13.1	0.30	6.57	38.5	94	3.04	0.138	0.129	8.3	0.50	3745	2805	217	71	D	G	0.3336	360.0	3.23	1072	20.7	350.5	3.15	1011	21.4	339.1	3.05	957	21.8	323.1	2.90
110	116	1014	22.0	21.3	19.7	22.4	23.9	2.90	5.8	13.3	0.30	6.91	38.4	93	3.14	0.140	0.131	8.2	0.50	3721	2805	212	70	D	G	0.3589	363.9	3.13	1008	21.4	354.7	3.05	959	21.9	343.9	2.96	915	22.3	329.5	2.83
115	121	956	22.6	21.9	20.0	22.7	24.3	2.97	6.0	13.5	0.30	7.24	38.3	92	3.23	0.142	0.133	8.1	0.50	3698	2805	208	69	C	G	0.3840	367.1	3.03	952	21.9	358.2	2.95	911	22.5	347.9	2.87	875	22.9	334.7	2.76
120	126	904	23.2	22.5	20.3	23.1	24.6	3.03	6.1	13.7	0.30	7.57	38.2	91	3.33	0.144	0.135	7.9	0.50	3676	2805	204	68	C	G	0.4088	369.6	2.93	900	22.5	360.9	2.86	867	23.0	351.0	2.78	836	23.4	338.9	2.68
125	131	858	23.8	23.0	20.6	23.3	24.8	3.10	6.2	13.9	0.31	7.89	38.1	90	3.41	0.146	0.137	7.8	0.50	3654	2805	200	68	C	G	0.4336	372.0	2.83	855	23.1	363.5	2.77	827	23.5	353.9	2.70	802	23.9	342.8	2.61
130	136	816	24.3	23.6	20.9	23.6	25.1	3.16	6.3	14.0	0.31	8.21	37.9	89	3.50	0.148	0.139	7.7	0.50	3634	2805	197	67	C	G	0.4578	373.6	2.74	814	23.6	365.3	2.68	790	24.0	356.0	2.61	769	24.3	345.8	2.54
135	141	778	24.9	24.1	21.2	23.9	25.4	3.22	6.4	14.1	0.31	8.52	37.8	88	3.59	0.150	0.141	7.6	0.49	3616	2805	193	66	C	G	0.4817	374.8	2.65	776	24.2	366.6	2.59	757	24.5	357.7	2.53	738	24.8	348.1	2.46
140	146	744	25.4	24.6	21.5	24.1	25.6	3.28	6.5	14.2	0.31	8.82	37.6	87	3.67	0.152	0.143	7.5	0.49	3598	2805	190	66	C	G	0.5052	375.9	2.57	743	24.7	367.9	2.51	726	25.0	359.1	2.45	710	25.3	350.3	2.39
145	151	713	25.9	25.1	21.7	24.3	25.8	3.34	6.6	14.3	0.31	9.13	37.5	86	3.75	0.154	0.145	7.4	0.49	3583	2805	187	65	C	G	0.5283	376.7	2.49	712	25.2	368.8	2.44	698	25.5	360.2	2.38	683	25.7	351.9	2.33
150	156	685	26.4	25.6	21.9	24.5	26.0	3.39	6.7	14.4	0.31	9.42	37.4	85	3.82	0.156	0.147	7.3	0.49	3568	2805	184	65	C	G	0.5509	377.4	2.41	684	25.6	369.6	2.36	672	25.9	361.2	2.31	659	26.2	353.3	2.26
155	161	659	26.8	26.1	22.2	24.7	26.2	3.44	6.8	14.5	0.32	9.71	37.3	84	3.90	0.157	0.149	7.2	0.49	3555	2805	182	64	C	G	0.5730	377.6	2.34	658	26.1	370.0	2.29	648	26.4	361.7	2.24	637	26.6	354.3	2.20
160	166	635	27.3	26.5	22.4	24.9	26.4	3.49	6.9	14.6	0.32	9.99	37.2	83	3.97	0.159	0.150	7.1	0.49	3544	2805	179	63	C	G	0.5946	377.6	2.27	634	26.6	370.0	2.23	625	26.8	361.8	2.18	616	27.0	354.9	2.13
165	171	614	27.7	27.0	22.6	25.1	26.6	3.54	6.9	14.6	0.32	10.27	37.1	82	4.04	0.161	0.152	7.0	0.49	3533	2805	177	63	C	G	0.6158	378.1	2.21	614	27.0	370.6	2.16	605	27.2	362.5	2.12	597	27.4	355.9	2.08
170	176	594	28.2	27.4	22.8	25.3	26.8	3.59	7.0	14.7	0.32	10.55	37.0	81	4.10	0.162	0.153	7.0	0.49	3524	2805	175	63	C	G	0.6362	377.9	2.14	594	27.4	370.5	2.10	586	27.6	362.5	2.06	579	27.8	356.3	2.02
175	181	575	28.6	27.8	23.0	25.5	26.9	3.63	7.1	14.7	0.32	10.82	36.9	81	4.17	0.164	0.155	6.9	0.49	3517	2805	173	62	C	G	0.6562	377.3	2.08	575	27.8	370.0	2.04	568	28.0	362.1	2.00	562	28.2	356.2	1.96
180	186	558	29.0	28.2	23.1	25.6	27.1	3.68	7.1	14.7	0.32	11.08	36.8	80	4.23	0.165	0.156	6.8	0.49	3510	2805	171	62	C	G	0.6756	377.0	2.02	558	28.2	369.8	1.99	552	28.4	361.9	1.94	546	28.6	356.2	1.91
SI = 17 m Initial Density = 7500 stems/ha																																								
5	11	7342	1.5	1.4	2.3	3.0	3.1	0.71	1.5	0.6	0.72	0.39	1.4	174	1.17	0.391	0.371	1.1	0.02	1044	2936	62	29	A	G	0.0002	1.6	0.14	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	6981	3.1	2.9	3.7	4.8	5.2	0.82	2.1	1.4	0.59	0.53	5.2	135	1.20	0.247	0.232	3.0	0.06	1496	2936	117	37	B	G	0.0014	9.9	0.61	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	6476	4.4	4.2	5.1	6.6	7.1	0.95	2.4	2.4	0.50	0.72	10.1	126	1.24	0.187	0.174	4.8	0.12	1976	2936	167	47	B	G	0.0042	27.0	1.27	91	8.2	1.1	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	5894	5.7	5.4	6.5	8.3	9.0	1.07	2.7	3.4	0.44	0.94	15.2	122	1.30	0.156	0.145	6.3	0.18	2427	2936	207	55	C	G	0.0088	51.8	1.97	896	8.5	14.4	0.55	2	12.3	0.1	0.00	0	0.0	0.0	0.00
25	31	5293	6.9	6.6	7.8	9.9	10.7	1.20	3.0	4.4	0.39	1.18	20.0	119	1.37	0.139	0.129	7.6	0.24	2818	2936	237	63	C	G	0.0154	81.4	2.60	1955	8.9	43.0	1.37	40	12.8	2.3	0.07	3	14.3	0.2	0.01
30	36	4715	8.1	7.7	8.9	11.3	12.2	1.33	3.2	5.3	0.37	1.45	24.2	117	1.46	0.129	0.119	8.5	0.29	3139	2936	258	68	C	G	0.0240	113.2	3.12	2631	9.5	78.5	2.16	216	13.1	14.3	0.39	37	14.7	2.8	0.08
35	41	4184	9.2	8.7	10.1	12.6	13.6	1.45	3.4	6.2	0.34	1.74	27.8	115	1.55	0.123	0.113	9.2	0.34	3389	2936	271	73	D	G	0.0347	145.2	3.52	2904	10.2	115.0	2.79	534	13.5	40.7	0.99	156	15.0	13.2	0.32
40	46	3711	10.3	9.8	11.1	13.7	14.9	1.57	3.5	7.0	0.33	2.04	30.7	113	1.64	0.120	0.110	9.6	0.38	3578	2936	278	76	D	G	0.0473	175.7	3.80	2920	10.9	149.7	3.23	889	13.9	77.5	1.67	366	15.3	35.2	0.76
45	51	3296	11.3	10.8	12.0	14.8	16.0	1.69	3.7	7.8	0.32	2.35	33.0	111	1.74	0.118	0.109	9.8	0.41	3716	2936	280	78	D	G	0.0619	204.0	3.98	2800	11.7	181.4	3.54	1184	14.3	117.5	2.29	614	15.6	66.4	1.29
50	56	2936	12.3	11.7	12.9	15.7	17.0	1.80	3.9	8.4	0.31	2.68	34.8	109	1.85	0.118	0.109	9.9	0.43	3811	2936	280	79	D	G	0.0782	229.5	4.08	2618	12.5	209.6	3.72	1384	14.8	155.8	2.77	842	16.0	102.2	1.82
55	61	2627	13.2	12.7	13.7	16.6	17.9	1.91	4.1	9.1	0.31	3.01	36.2	107	1.95	0.118	0.109	9.9	0.45	3874	2936	277	79	D	G	0.0960	252.3	4.12	2419	13.3	234.6	3.83	1494	15.4	190.2	3.10	1018	16.5	138.2	2.25
60	66	2360	14.2	13.6	14.4	17.3	18.7	2.01	4.3	9.7	0.30	3.35	37.2	106	2.06	0.119	0.110	9.9	0.47	3911	2936	272	79	D	G	0.1153	272.2	4.11	2221	14.1	256.2	3.86	1533	15.9	219.7	3.31	1134	17.0	171.7	2.59
65	71	2131	15.1	14.5	15.1	18.0	19.5	2.11	4.4	10.2	0.30	3.70	37.9	104	2.17	0.120	0.111	9.8	0.48	3929	2936	267	79	D	G	0.1359	289.7	4.06	2036	14.9	275.0	3.86	1524	16.5	244.8	3.43	1199	17.4	201.6	2.83
70	76	1934	15.9	15.3	15.8	18.7	20.2	2.21	4.6	10.7	0.30	4.05	38.5	103	2.27	0.122	0.113	9.6	0.49	3933	2936	261	78	D	G	0.1575	304.7	3.99	1868	15.6	291.1	3.82	1485	17.1	265.8	3.48	1224	18.0	227.5	2.98
75	81	1764	16.7	16.1	16.4	19.3	20.8	2.31	4.8	11.1	0.30	4.40	38.8	102	2.38	0.123	0.115	9.5	0.49	3927	2936	255	78	D	G	0.1802	317.8	3.91	1717	16.4	305.0	3.75	1428	17.7	283.4	3.49	1220	18.5	249.6	3.07
80	86	1616	17.5	16.9	16.9	19.8	21.3	2.40	4.9	11.5	0.30	4.74	39.1	100	2.49	0.125	0.117	9.3	0.50	3912	2936	249	77	D	G	0.2034	328.7	3.81	1582	17.1	316.8	3.67	1362	18.3	298.0	3.45	1196	19.0	268.2	3.11
85	91	1488	18.3	17.7	17.4	20.3	21.9	2.48	5.1	11.9	0.30	5.09	39.2	99	2.59	0.127	0.119	9.2	0.50	3893	2936	243	76	D	G	0.2274	338.3	3.71	1463	17.9	326.9	3.58	1294	18.9	310.3	3.40	1161	19.5	284.0	3.11
90	96	1375	19.1	18.4	17.9	20.8	22.3	2.57	5.2	12.2	0.30	5.44	39.2	98	2.70	0.130	0.121	9.0	0.50	3870	2936	237	75	D	G	0.2516	346.0	3.59	1357	18.6	335.2	3.48	1225	19.5	320.3	3.33	1118	20.1	297.0	3.08
95	101	1277	19.8	19.1	18.4	21.3	22.8	2.65	5.4	12.5	0.30	5.78	39.2	97	2.80	0.132	0.123	8.8	0.50	3845	2936	232	74	D	G	0.2763	352.8	3.48	1263	19.2	342.4	3.38	1160	20.0	328.8	3.25	1074	20.6	308.1	3.04
100	106	1190	20.5	19.8	18.8	21.7	23.2	2.73	5.5	12.8	0.30	6.13	39.1	95	2.90	0.134	0.125	8.6	0.50	3819	2936	226	73	D	G	0.3011	358.3	3.37	1179	19.9	348.3	3.28	1097	20.6	335.7	3.16	1027	21.1	317.2	2.98
105	111	1113	21.1	20.4	19.2	22.0	23.6	2.80	5.7	13.1	0.30	6.46	39.0	94	3.00	0.136	0.127	8.5	0.50	3792	2936	221	72	D	G	0.3260	362.8	3.26	1105	20.5	353.2	3.17	1039	21.2	341.4	3.07	982	21.7	324.8	2.92
110	116	1045	21.8	21.1	19.6	22.4	23.9	2.87	5.8	13.3	0.30	6.80	38.9	93	3.09	0.138	0.129	8.3	0.50	3766	2936	216	71	D	G	0.3509	366.7	3.15	1039	21.1	357.3	3.07	985	21.7	346.2	2.98	938	22.2	331.1	2.85
115	121	985	22.4	21.7	19.9	22.7	24.3	2.94	5.9	13.5	0.30	7.13	38.7	92	3.19	0.140	0.131	8.2	0.50	3741	2936	212	70	D	G	0.3756	370.0	3.05	980	21.7	360.9	2.98	936	22.3	350.3	2.89	897	22.7	336.6	2.78
120	126	931	23.0	22.3	20.2	23.0	24.6	3.01	6.0	13.7	0.30	7.45	38.6	91	3.28	0.142	0.133	8.1	0.50	3716	2936	207	69	C	G	0.4002	372.6	2.95	927	22.3	363.8	2.88	891	22.8	353.7	2.80	858	23.2	341.1	2.70
125	131	882	23.6	22.8	20.5	23.3	24.8	3.08	6.1	13.8	0.30	7.77	38.4	90	3.37	0.145	0.136	7.9	0.50	3692	2936	203	69	C	G	0.4246	374.5	2.85	879	22.9	365.8	2.79	849	23.3	356.1	2.71	821	23.7	344.5	2.62
130	136	838	24.1	23.4	20.8	23.6	25.1	3.14	6.2	14.0	0.31	8.08	38.3	89	3.45	0.147	0.138	7.8	0.50	3670	2936	199	68	C	G	0.4486	375.9	2.76	836	23.4	367.5	2.70	810	23.8	358.0	2.63	787	24.2	347.4	2.55
135	141	799	24.6	23.9	21.1	23.8	25.4	3.20	6.3	14.1	0.31	8.39	38.1	88	3.54	0.148	0.139	7.7	0.50	3650	2936	196	67	C	G	0.4723	377.4	2.67	797	24.0	369.1	2.61	776	24.3	359.9	2.55	756	24.6	350.1	2.48
140	146	763	25.2	24.4	21.4	24.1	25.6	3.26	6.4	14.2	0.31	8.70	38.0	87	3.62	0.150	0.141	7.6	0.50	3631	2936	193	66	C	G	0.4955	378.1	2.58	761	24.5	370.0	2.53	743	24.8	361.1	2.47	726	25.1	351.9	2.41
145	151	731	25.7	24.9	21.6	24.3	25.8	3.31	6.5	14.3	0.31	9.00	37.8	86	3.70	0.152	0.143	7.5	0.50	3613	2936	190	66	C	G	0.5185	379.0	2.51	730	24.9	371.0	2.45	714	25.3	362.3	2.39	699	25.5	353.7	2.34
150	156	701	26.2	25.4	21.8	24.5	26.0	3.37	6.6	14.4	0.31	9.29	37.7	85	3.78	0.154	0.145	7.4	0.50	3597	2936	187	65	C	G	0.5409	379.2	2.43	700	25.4	371.3	2.38	687	25.7	362.7	2.32	674	26.0	354.7	2.27
155	161	675	26.6	25.9	22.1	24.7	26.2	3.42	6.7	14.5	0.31	9.58	37.6	84	3.85	0.156	0.147	7.3	0.50	3582	2936	184	65	C	G	0.5628	379.9	2.36	674	25.9	372.2	2.31	663	26.2	363.7	2.25	651	26.4	356.1	2.21
160	166	650	27.1	26.3	22.3	24.9	26.4	3.47	6.8	14.5	0.32	9.86	37.5	83	3.92	0.158	0.149	7.2	0.50	3569	2936	181	64	C	G	0.5843	379.8	2.28	649	26.3	372.1	2.24	639	26.6	363.8	2.19	629	26.8	356.7	2.15
165	171	627	27.5	26.8	22.5	25.1	26.6	3.52	6.9	14.6	0.32	10.14	37.3	83	3.99	0.159	0.150	7.1	0.49	3557	2936	179	64	C	G	0.6053	379.5	2.22	627	26.8	371.9	2.17	618	27.0	363.7	2.12	609	27.2	357.0	2.08
170	176	607	28.0	27.2	22.7	25.3	26.8	3.57	7.0	14.6	0.32	10.41	37.3	82	4.06	0.161	0.152	7.0	0.49	3547	2936	177	63	C	G	0.6257	379.8	2.15	607	27.2	372.3	2.11	599	27.4	364.2	2.07	591	27.6	357.8	2.03
175	181	588	28.4	27.6	22.8	25.4	26.9	3.61	7.0	14.7	0.32	10.68	37.2	81	4.12	0.162	0.153	7.0	0.49	3538	2936	175	63	C	G	0.6456	379.6	2.09	588	27.6	372.2	2.05	581	27.8	364.2	2.01	574	28.0	358.1	1.98
180	186	570	28.8	28.0	23.0	25.6	27.1	3.66	7.1	14.7	0.32	10.94	37.1	80	4.19	0.164	0.155	6.9	0.49	3530	2936	173	62	C	G	0.6649	379.0	2.03	570	28.0	371.7	2.00	564	28.2	363.8	1.95	557	28.4	357.9	1.92

Table A87. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 17 m Initial Density = 8000 stems/ha																																								
5	11	7826	1.5	1.4	2.3	3.0	3.1	0.70	1.5	0.6	0.72	0.39	1.4	177	1.13	0.379	0.359	1.1	0.02	1105	3065	65	31	B	G	0.0002	1.6	0.14	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	7430	3.0	2.8	3.7	4.8	5.2	0.82	2.0	1.4	0.59	0.53	5.3	136	1.16	0.240	0.225	3.1	0.06	1570	3065	122	39	B	G	0.0014	10.1	0.62	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	6878	4.4	4.1	5.1	6.6	7.1	0.94	2.4	2.4	0.49	0.71	10.3	127	1.21	0.182	0.169	4.9	0.12	2062	3065	174	49	B	G	0.0040	27.6	1.30	79	8.2	1.0	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	6243	5.6	5.3	6.4	8.3	9.0	1.07	2.7	3.4	0.43	0.92	15.6	123	1.27	0.152	0.141	6.6	0.19	2521	3065	215	58	C	G	0.0084	52.7	2.00	867	8.4	13.7	0.52	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	31	5591	6.8	6.5	7.7	9.9	10.7	1.19	2.9	4.4	0.39	1.16	20.5	120	1.34	0.135	0.125	7.8	0.25	2916	3065	246	65	C	G	0.0148	82.8	2.65	1968	8.9	42.3	1.35	34	12.8	1.9	0.06	2	14.3	0.1	0.00
30	36	4967	8.0	7.6	8.9	11.3	12.2	1.32	3.1	5.3	0.36	1.42	24.8	117	1.42	0.126	0.116	8.8	0.30	3237	3065	267	71	D	G	0.0232	115.1	3.17	2694	9.4	78.3	2.16	197	13.1	13.0	0.36	31	14.7	2.3	0.06
35	41	4396	9.1	8.6	10.0	12.5	13.6	1.44	3.3	6.2	0.34	1.70	28.4	115	1.51	0.120	0.111	9.4	0.35	3486	3065	279	75	D	G	0.0335	147.3	3.57	2997	10.1	115.5	2.80	510	13.4	38.5	0.93	141	14.9	11.9	0.29
40	46	3890	10.1	9.6	11.0	13.7	14.9	1.56	3.5	7.0	0.33	2.00	31.3	113	1.60	0.117	0.108	9.8	0.39	3672	3065	286	78	D	G	0.0458	178.1	3.85	3025	10.8	150.8	3.26	871	13.8	75.0	1.62	345	15.2	32.8	0.71
45	51	3447	11.1	10.6	12.0	14.7	16.0	1.67	3.7	7.7	0.32	2.31	33.6	111	1.70	0.116	0.107	10.1	0.42	3805	3065	288	80	D	G	0.0599	206.6	4.03	2904	11.6	182.9	3.57	1180	14.3	115.4	2.25	594	15.6	63.5	1.24
50	56	3065	12.1	11.6	12.8	15.7	17.0	1.78	3.9	8.4	0.31	2.63	35.4	110	1.81	0.115	0.106	10.2	0.44	3896	3065	287	81	D	G	0.0758	232.3	4.13	2717	12.4	211.5	3.76	1395	14.7	154.5	2.74	830	16.0	99.3	1.76
55	61	2737	13.1	12.5	13.6	16.5	17.9	1.89	4.0	9.0	0.30	2.96	36.8	108	1.91	0.116	0.107	10.2	0.46	3954	3065	284	81	D	G	0.0932	255.1	4.16	2510	13.2	236.7	3.86	1515	15.3	189.6	3.09	1015	16.4	135.7	2.21
60	66	2456	14.0	13.4	14.4	17.3	18.7	1.99	4.2	9.6	0.30	3.29	37.8	106	2.02	0.117	0.108	10.1	0.48	3987	3065	279	81	D	G	0.1121	275.3	4.15	2304	13.9	258.6	3.90	1563	15.8	220.0	3.32	1142	16.9	170.0	2.56
65	71	2214	14.9	14.3	15.1	18.0	19.5	2.10	4.4	10.2	0.30	3.63	38.5	105	2.13	0.118	0.109	10.0	0.49	4001	3065	273	80	D	G	0.1322	292.6	4.10	2111	14.7	277.4	3.89	1558	16.4	245.5	3.44	1213	17.3	200.4	2.81
70	76	2007	15.7	15.1	15.7	18.7	20.2	2.19	4.6	10.6	0.30	3.97	39.1	103	2.23	0.120	0.111	9.8	0.49	4001	3065	267	80	D	G	0.1534	307.8	4.03	1935	15.5	293.8	3.85	1521	17.0	267.0	3.50	1243	17.8	227.0	2.98
75	81	1828	16.6	15.9	16.3	19.3	20.8	2.29	4.7	11.1	0.29	4.32	39.4	102	2.34	0.121	0.113	9.7	0.50	3991	3065	261	79	D	G	0.1755	320.8	3.95	1777	16.2	307.7	3.79	1465	17.5	284.9	3.50	1243	18.4	249.6	3.07
80	86	1673	17.4	16.7	16.8	19.8	21.3	2.38	4.9	11.5	0.29	4.66	39.6	101	2.44	0.123	0.115	9.5	0.50	3973	3065	254	78	D	G	0.1983	331.8	3.85	1636	17.0	319.5	3.70	1399	18.1	299.8	3.47	1221	18.9	268.7	3.11
85	91	1538	18.1	17.5	17.3	20.3	21.9	2.46	5.0	11.9	0.29	5.01	39.7	99	2.55	0.125	0.117	9.3	0.51	3950	3065	248	77	D	G	0.2218	341.1	3.74	1511	17.7	329.4	3.61	1328	18.7	312.1	3.42	1186	19.4	284.6	3.12
90	96	1420	18.9	18.2	17.8	20.8	22.3	2.55	5.2	12.2	0.29	5.35	39.7	98	2.65	0.128	0.119	9.1	0.51	3924	3065	242	76	D	G	0.2457	348.9	3.62	1400	18.4	337.8	3.51	1258	19.3	322.3	3.35	1144	19.9	298.0	3.09
95	101	1317	19.6	18.9	18.3	21.2	22.8	2.63	5.3	12.5	0.30	5.69	39.6	97	2.76	0.130	0.121	9.0	0.51	3896	3065	236	75	D	G	0.2699	355.5	3.51	1302	19.0	344.8	3.40	1190	19.9	330.7	3.26	1098	20.5	309.1	3.05
100	106	1227	20.3	19.6	18.7	21.6	23.2	2.70	5.5	12.8	0.30	6.03	39.6	96	2.85	0.132	0.123	8.8	0.51	3867	3065	230	74	D	G	0.2944	361.2	3.40	1216	19.7	351.0	3.30	1127	20.5	338.0	3.18	1052	21.0	318.6	3.00
105	111	1147	20.9	20.2	19.1	22.0	23.6	2.78	5.6	13.0	0.30	6.36	39.4	95	2.95	0.134	0.125	8.6	0.51	3838	3065	225	73	D	G	0.3188	365.7	3.29	1138	20.3	355.9	3.20	1067	21.0	343.8	3.09	1006	21.5	326.4	2.93
110	116	1076	21.6	20.9	19.4	22.3	23.9	2.85	5.7	13.3	0.30	6.69	39.3	94	3.05	0.136	0.127	8.5	0.51	3809	3065	220	72	D	G	0.3434	369.5	3.18	1069	21.0	360.0	3.10	1012	21.6	348.6	3.00	961	22.0	332.9	2.86
115	121	1013	22.2	21.5	19.8	22.7	24.3	2.92	5.8	13.5	0.30	7.02	39.1	92	3.14	0.139	0.130	8.3	0.51	3781	3065	215	71	D	G	0.3678	372.6	3.07	1008	21.5	363.4	3.00	961	22.1	352.6	2.91	919	22.5	338.3	2.79
120	126	956	22.8	22.1	20.1	23.0	24.6	2.99	6.0	13.6	0.30	7.34	38.9	91	3.23	0.141	0.132	8.2	0.51	3754	3065	210	70	D	G	0.3922	374.9	2.97	952	22.1	365.9	2.90	913	22.6	355.5	2.82	878	23.0	342.5	2.71
125	131	906	23.4	22.6	20.4	23.3	24.8	3.05	6.1	13.8	0.30	7.66	38.8	90	3.32	0.143	0.134	8.0	0.50	3729	3065	206	69	C	G	0.4162	377.1	2.87	903	22.7	368.3	2.81	870	23.2	358.3	2.73	841	23.5	346.4	2.64
130	136	860	23.9	23.2	20.7	23.5	25.1	3.11	6.2	13.9	0.30	7.97	38.6	89	3.41	0.145	0.136	7.9	0.50	3705	3065	202	69	C	G	0.4400	378.4	2.78	857	23.2	369.8	2.71	830	23.7	360.2	2.64	805	24.0	349.1	2.56
135	141	819	24.4	23.7	21.0	23.8	25.4	3.17	6.3	14.1	0.31	8.28	38.4	88	3.49	0.147	0.138	7.8	0.50	3682	3065	199	68	C	G	0.4634	379.5	2.69	817	23.7	371.1	2.63	794	24.1	361.8	2.56	773	24.4	351.6	2.49
140	146	782	25.0	24.2	21.2	24.0	25.6	3.23	6.4	14.2	0.31	8.58	38.3	87	3.58	0.149	0.140	7.7	0.50	3661	3065	195	67	C	G	0.4864	380.4	2.60	780	24.3	372.2	2.54	761	24.6	363.1	2.48	742	24.9	353.6	2.42
145	151	748	25.5	24.7	21.5	24.3	25.8	3.29	6.5	14.3	0.31	8.88	38.1	87	3.66	0.151	0.142	7.6	0.50	3642	3065	192	66	C	G	0.5091	380.8	2.52	747	24.7	372.8	2.46	730	25.1	363.9	2.41	714	25.4	355.0	2.35
150	156	718	26.0	25.2	21.7	24.5	26.0	3.34	6.6	14.4	0.31	9.17	38.0	86	3.73	0.153	0.143	7.5	0.50	3624	3065	189	66	C	G	0.5313	381.5	2.44	717	25.2	373.6	2.39	703	25.5	364.9	2.33	689	25.8	356.6	2.28
155	161	690	26.4	25.7	21.9	24.7	26.2	3.40	6.7	14.4	0.31	9.45	37.9	85	3.81	0.154	0.145	7.4	0.50	3608	3065	186	65	C	G	0.5532	381.7	2.37	689	25.7	373.9	2.32	677	26.0	365.3	2.26	664	26.2	357.4	2.22
160	166	664	26.9	26.1	22.2	24.9	26.4	3.45	6.8	14.5	0.31	9.74	37.7	84	3.88	0.156	0.147	7.3	0.50	3593	3065	183	65	C	G	0.5744	381.4	2.29	663	26.1	373.7	2.25	652	26.4	365.3	2.20	642	26.6	357.9	2.15
165	171	641	27.3	26.6	22.4	25.0	26.6	3.50	6.8	14.6	0.32	10.01	37.6	83	3.95	0.158	0.149	7.2	0.50	3580	3065	181	64	C	G	0.5953	381.6	2.23	640	26.6	373.9	2.18	631	26.8	365.6	2.13	621	27.0	358.6	2.09
170	176	619	27.8	27.0	22.5	25.2	26.8	3.54	6.9	14.6	0.32	10.28	37.5	82	4.02	0.159	0.150	7.1	0.50	3568	3065	179	64	C	G	0.6155	381.0	2.16	619	27.0	373.5	2.12	610	27.2	365.3	2.07	602	27.4	358.7	2.03
175	181	599	28.2	27.4	22.7	25.4	26.9	3.59	7.0	14.6	0.32	10.55	37.4	81	4.09	0.161	0.152	7.0	0.50	3558	3065	177	63	C	G	0.6354	380.6	2.10	599	27.4	373.1	2.06	591	27.6	365.0	2.01	584	27.8	358.8	1.98
180	186	581	28.6	27.8	22.9	25.5	27.1	3.63	7.0	14.7	0.32	10.81	37.3	80	4.15	0.162	0.153	7.0	0.50	3549	3065	175	63	C	G	0.6546	380.3	2.04	581	27.8	373.0	2.00	574	28.0	364.9	1.96	567	28.2	358.9	1.93
SI = 17 m Initial Density = 9000 stems/ha																																								
5	11	8794	1.5	1.4	2.3	3.0	3.1	0.70	1.5	0.6	0.71	0.39	1.5	182	1.07	0.358	0.339	1.2	0.02	1225	3316	71	34	B	G	0.0002	1.6	0.14	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	8326	2.9	2.7	3.7	4.8	5.2	0.81	2.0	1.4	0.58	0.52	5.6	139	1.10	0.227	0.212	3.3	0.06	1717	3316	132	43	B	G	0.0013	10.5	0.64	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	7675	4.2	4.0	5.0	6.6	7.1	0.93	2.3	2.4	0.49	0.69	10.9	129	1.14	0.172	0.160	5.3	0.13	2229	3316	187	53	C	G	0.0037	28.6	1.34	59	8.1	0.7	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	6933	5.5	5.2	6.4	8.3	9.0	1.05	2.6	3.4	0.42	0.89	16.3	125	1.20	0.145	0.133	7.0	0.20	2701	3316	230	62	C	G	0.0079	54.5	2.07	805	8.3	12.3	0.47	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	31	6178	6.6	6.3	7.6	9.9	10.7	1.17	2.8	4.4	0.38	1.12	21.4	121	1.27	0.129	0.119	8.3	0.26	3102	3316	262	69	C	G	0.0138	85.4	2.73	1977	8.8	40.8	1.30	24	12.7	1.4	0.04	2	14.0	0.1	0.00
30	36	5462	7.8	7.4	8.8	11.3	12.2	1.29	3.0	5.3	0.36	1.37	25.9	119	1.35	0.120	0.111	9.3	0.32	3423	3316	283	75	D	G	0.0217	118.4	3.26	2801	9.3	77.7	2.14	163	13.0	10.6	0.29	22	14.6	1.6	0.04
35	41	4812	8.8	8.4	9.9	12.5	13.6	1.41	3.2	6.1	0.34	1.64	29.5	116	1.44	0.115	0.106	9.9	0.37	3668	3316	296	79	D	G	0.0314	151.2	3.66	3166	10.0	116.0	2.81	463	13.3	34.3	0.83	115	14.9	9.5	0.23
40	46	4239	9.9	9.4	10.9	13.7	14.9	1.53	3.4	6.9	0.32	1.93	32.5	114	1.54	0.112	0.103	10.3	0.40	3848	3316	302	82	D	G	0.0431	182.5	3.94	3219	10.7	152.4	3.29	833	13.7	70.1	1.51	305	15.1	28.5	0.62
45	51	3743	10.9	10.4	11.8	14.7	16.0	1.64	3.6	7.7	0.31	2.23	34.8	112	1.63	0.111	0.102	10.6	0.44	3973	3316	303	83	D	G	0.0565	211.3	4.12	3102	11.4	185.4	3.61	1167	14.1	111.2	2.17	555	15.5	58.0	1.13
50	56	3316	11.9	11.3	12.7	15.6	17.0	1.75	3.8	8.3	0.31	2.54	36.6	111	1.74	0.111	0.102	10.6	0.46	4056	3316	301	84	D	G	0.0716	237.3	4.22	2906	12.1	214.7	3.81	1408	14.6	151.6	2.69	802	15.9	93.6	1.66
55	61	2952	12.8	12.2	13.5	16.5	17.9	1.86	3.9	9.0	0.30	2.85	37.9	109	1.84	0.112	0.103	10.6	0.48	4105	3316	297	84	D	G	0.0882	260.3	4.25	2684	12.9	240.4	3.92	1551	15.1	188.1	3.07	1005	16.3	130.7	2.13
60	66	2641	13.7	13.1	14.2	17.3	18.7	1.96	4.1	9.5	0.30	3.18	38.9	107	1.95	0.113	0.104	10.5	0.49	4130	3316	291	84	D	G	0.1062	280.5	4.23	2462	13.7	262.6	3.96	1614	15.6	219.7	3.31	1149	16.7	166.0	2.50
65	71	2375	14.6	14.0	14.9	18.0	19.5	2.06	4.3	10.1	0.29	3.51	39.6	106	2.05	0.114	0.105	10.4	0.50	4136	3316	285	83	D	G	0.1255	298.0	4.18	2253	14.4	281.8	3.95	1620	16.2	246.4	3.46	1235	17.2	197.7	2.77
70	76	2147	15.4	14.8	15.5	18.6	20.2	2.16	4.4	10.6	0.29	3.84	40.1	104	2.16	0.116	0.107	10.2	0.51	4128	3316	278	83	D	G	0.1458	313.1	4.10	2062	15.2	298.1	3.91	1587	16.7	268.7	3.52	1276	17.6	225.3	2.95
75	81	1951	16.2	15.6	16.1	19.2	20.8	2.25	4.6	11.0	0.29	4.18	40.4	103	2.26	0.118	0.109	10.0	0.51	4110	3316	271	82	D	G	0.1671	326.0	4.01	1891	15.9	312.1	3.84	1532	17.3	287.2	3.53	1282	18.1	248.8	3.06
80	86	1782	17.0	16.4	16.7	19.8	21.3	2.34	4.8	11.4	0.29	4.52	40.5	102	2.37	0.120	0.111	9.8	0.52	4086	3316	264	80	D	G	0.1891	337.0	3.91	1739	16.7	324.0	3.75	1465	17.9	302.5	3.51	1265	18.6	268.8	3.12
85	91	1636	17.8	17.1	17.2	20.3	21.9	2.42	4.9	11.8	0.29	4.85	40.6	100	2.47	0.122	0.113	9.6	0.52	4057	3316	257	79	D	G	0.2117	346.4	3.79	1604	17.4	334.2	3.66	1394	18.4	315.4	3.46	1233	19.2	285.6	3.13
90	96	1508	18.5	17.9	17.6	20.7	22.3	2.51	5.1	12.1	0.29	5.19	40.6	99	2.58	0.124	0.115	9.4	0.52	4025	3316	250	78	D	G	0.2349	354.2	3.68	1485	18.0	342.5	3.56	1321	19.0	325.9	3.38	1192	19.7	299.5	3.11
95	101	1396	19.2	18.6	18.1	21.2	22.8	2.59	5.2	12.4	0.29	5.52	40.5	98	2.68	0.126	0.117	9.2	0.52	3991	3316	244	77	D	G	0.2583	360.6	3.56	1378	18.7	349.5	3.45	1250	19.6	334.5	3.30	1145	20.2	311.0	3.07
100	106	1298	19.9	19.2	18.5	21.6	23.2	2.66	5.4	12.7	0.29	5.85	40.4	97	2.78	0.129	0.120	9.0	0.52	3957	3316	238	76	D	G	0.2820	366.1	3.44	1284	19.4	355.5	3.34	1183	20.1	341.7	3.21	1098	20.7	320.8	3.02
105	111	1211	20.6	19.9	18.9	21.9	23.6	2.74	5.5	12.9	0.29	6.18	40.2	95	2.87	0.131	0.122	8.9	0.52	3923	3316	232	75	D	G	0.3059	370.4	3.33	1201	20.0	360.2	3.24	1119	20.7	347.4	3.12	1049	21.2	328.6	2.95
110	116	1135	21.2	20.5	19.3	22.3	23.9	2.81	5.6	13.2	0.30	6.50	40.0	94	2.97	0.133	0.124	8.7	0.52	3890	3316	226	74	D	G	0.3298	374.3	3.22	1127	20.6	364.4	3.13	1061	21.2	352.4	3.03	1003	21.7	335.4	2.88
115	121	1067	21.8	21.1	19.6	22.6	24.3	2.88	5.7	13.4	0.30	6.82	39.9	93	3.06	0.135	0.126	8.5	0.52	3857	3316	221	73	D	G	0.3536	377.3	3.11	1061	21.2	367.7	3.03	1007	21.8	356.4	2.94	959	22.2	341.0	2.81
120	126	1006	22.4	21.7	19.9	22.9	24.6	2.95	5.9	13.6	0.30	7.14	39.7	92	3.15	0.138	0.128	8.4	0.51	3826	3316	217	72	D	G	0.3773	379.6	3.01	1001	21.8	370.3	2.93	957	22.3	359.5	2.85	917	22.7	345.5	2.74
125	131	951	23.0	22.3	20.2	23.2	24.8	3.01	6.0	13.7	0.30	7.45	39.4	91	3.24	0.140	0.131	8.2	0.51	3797	3316	212	71	D	G	0.4008	381.2	2.90	947	22.3	372.1	2.83	910	22.8	361.8	2.76	877	23.2	349.0	2.66
130	136	902	23.5	22.8	20.5	23.5	25.1	3.07	6.1	13.9	0.30	7.76	39.2	90	3.33	0.142	0.133	8.1	0.51	3769	3316	208	70	C	G	0.4241	382.5	2.81	899	22.9	373.7	2.74	868	23.3	363.7	2.67	839	23.7	351.9	2.58
135	141	858	24.1	23.3	20.8	23.7	25.4	3.13	6.2	14.0	0.30	8.06	39.0	89	3.41	0.144	0.135	8.0	0.51	3743	3316	204	69	C	G	0.4471	383.6	2.72	855	23.4	374.9	2.65	829	23.8	365.3	2.59	805	24.1	354.4	2.51
140	146	818	24.6	23.8	21.0	24.0	25.6	3.19	6.3	14.1	0.31	8.36	38.8	88	3.50	0.146	0.137	7.8	0.51	3719	3316	200	68	C	G	0.4697	384.2	2.63	816	23.9	375.8	2.57	794	24.3	366.4	2.50	773	24.6	356.3	2.44
145	151	782	25.1	24.3	21.3	24.2	25.8	3.25	6.4	14.2	0.31	8.65	38.7	87	3.58	0.148	0.139	7.7	0.51	3696	3316	197	68	C	G	0.4919	384.7	2.54	780	24.4	376.4	2.49	761	24.7	367.3	2.43	743	25.0	357.8	2.37
150	156	749	25.6	24.8	21.5	24.4	26.0	3.30	6.5	14.3	0.31	8.94	38.5	86	3.65	0.150	0.140	7.6	0.51	3675	3316	193	67	C	G	0.5139	384.9	2.46	748	24.8	376.7	2.41	731	25.2	367.8	2.35	716	25.4	359.0	2.30
155	161	719	26.1	25.3	21.7	24.6	26.2	3.35	6.6	14.4	0.31	9.22	38.3	85	3.73	0.152	0.142	7.5	0.50	3656	3316	190	66	C	G	0.5353	384.9	2.39	718	25.3	376.9	2.34	704	25.6	368.1	2.28	690	25.9	359.8	2.23
160	166	692	26.5	25.7	21.9	24.8	26.4	3.40	6.7	14.4	0.31	9.50	38.2	84	3.80	0.153	0.144	7.4	0.50	3639	3316	188	66	C	G	0.5564	385.0	2.32	691	25.8	377.1	2.27	679	26.0	368.5	2.22	667	26.3	360.7	2.17
165	171	667	27.0	26.2	22.1	25.0	26.6	3.45	6.7	14.5	0.31	9.78	38.1	84	3.87	0.155	0.146	7.3	0.50	3623	3316	185	65	C	G	0.5769	384.8	2.25	666	26.2	377.0	2.20	656	26.5	368.5	2.15	645	26.7	361.1	2.11
170	176	644	27.4	26.6	22.3	25.1	26.8	3.50	6.8	14.5	0.32	10.05	37.9	83	3.94	0.157	0.147	7.2	0.50	3609	3316	182	65	C	G	0.5969	384.4	2.18	643	26.6	376.7	2.14	634	26.9	368.4	2.09	624	27.1	361.4	2.05
175	181	623	27.8	27.0	22.5	25.3	26.9	3.55	6.9	14.6	0.32	10.31	37.8	82	4.01	0.158	0.149	7.2	0.50	3596	3316	180	64	C	G	0.6165	384.1	2.12	623	27.0	376.5	2.08	614	27.3	368.2	2.03	606	27.5	361.6	1.99
180	186	603	28.2	27.4	22.7	25.5	27.1	3.59	7.0	14.6	0.32	10.57	37.7	81	4.07	0.160	0.150	7.1	0.50	3585	3316	178	64	C	G	0.6357	383.3	2.06	603	27.4	375.7	2.02	595	27.7	367.6	1.97	588	27.8	361.3	1.94

Table A88. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
		SI = 17 m Initial Density = 10000 stems/ha																																						
5	11	9761	1.4	1.3	2.2	3.0	3.1	0.70	1.5	0.6	0.70	0.38	1.5	186	1.01	0.340	0.321	1.3	0.02	1345	3559	77	37	B	G	0.0002	1.7	0.15	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	9217	2.8	2.7	3.6	4.8	5.2	0.80	1.9	1.4	0.57	0.51	5.8	141	1.04	0.216	0.202	3.5	0.07	1860	3559	142	47	B	G	0.0012	10.8	0.66	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	8466	4.1	3.9	5.0	6.6	7.1	0.92	2.3	2.4	0.48	0.67	11.3	131	1.09	0.164	0.152	5.6	0.13	2390	3559	199	57	C	G	0.0035	29.5	1.39	44	8.1	0.5	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	7615	5.3	5.0	6.3	8.3	9.0	1.03	2.5	3.4	0.42	0.87	17.0	126	1.15	0.138	0.127	7.4	0.20	2873	3559	245	66	C	G	0.0074	56.1	2.13	743	8.3	11.0	0.42	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	31	6755	6.5	6.1	7.6	9.8	10.7	1.15	2.7	4.3	0.38	1.09	22.3	123	1.22	0.124	0.114	8.7	0.27	3278	3559	278	74	D	G	0.0130	87.7	2.80	1969	8.7	39.1	1.25	17	12.7	1.0	0.03	0	0.0	0.0	0.00
30	36	5945	7.6	7.2	8.7	11.2	12.2	1.27	2.9	5.2	0.35	1.33	26.8	120	1.30	0.115	0.106	9.7	0.33	3598	3559	299	79	D	G	0.0204	121.3	3.34	2885	9.2	76.7	2.11	135	13.0	8.7	0.24	16	14.6	1.2	0.03
35	41	5217	8.6	8.2	9.8	12.5	13.6	1.39	3.1	6.1	0.33	1.59	30.6	117	1.38	0.111	0.102	10.4	0.38	3839	3559	311	83	D	G	0.0297	154.7	3.75	3315	9.8	116.1	2.81	418	13.3	30.5	0.74	93	14.8	7.6	0.18
40	46	4579	9.7	9.2	10.8	13.6	14.9	1.50	3.3	6.9	0.32	1.87	33.6	115	1.48	0.108	0.099	10.8	0.42	4011	3559	316	85	D	G	0.0407	186.4	4.03	3398	10.5	153.5	3.32	792	13.6	65.4	1.41	270	15.1	24.8	0.54
45	51	4029	10.7	10.2	11.7	14.7	16.0	1.61	3.5	7.6	0.31	2.16	35.9	113	1.58	0.107	0.099	11.0	0.45	4129	3559	317	87	D	G	0.0535	215.5	4.20	3286	11.2	187.3	3.65	1146	14.0	106.8	2.08	516	15.4	52.9	1.03
50	56	3559	11.6	11.1	12.6	15.6	17.0	1.72	3.7	8.3	0.30	2.46	37.7	111	1.68	0.107	0.099	11.1	0.47	4204	3559	314	87	D	G	0.0679	241.6	4.29	3084	11.9	217.3	3.86	1412	14.5	148.2	2.63	772	15.7	88.1	1.57
55	61	3160	12.5	12.0	13.3	16.4	17.9	1.83	3.8	8.9	0.30	2.77	39.0	110	1.78	0.108	0.099	11.0	0.49	4245	3559	309	87	D	G	0.0838	264.8	4.32	2849	12.7	243.4	3.97	1578	14.9	186.0	3.03	990	16.1	125.6	2.05
60	66	2820	13.4	12.9	14.1	17.2	18.7	1.93	4.0	9.5	0.29	3.08	39.9	108	1.88	0.109	0.101	10.9	0.51	4262	3559	303	87	D	G	0.1011	285.1	4.30	2613	13.4	266.0	4.01	1657	15.5	218.9	3.30	1150	16.6	161.8	2.44
65	71	2530	14.3	13.7	14.7	17.9	19.5	2.03	4.2	10.0	0.29	3.40	40.6	106	1.99	0.111	0.102	10.7	0.51	4260	3559	295	86	D	G	0.1196	302.6	4.24	2389	14.2	285.4	4.00	1673	16.0	246.6	3.46	1250	17.0	194.4	2.73
70	76	2283	15.1	14.5	15.4	18.6	20.2	2.12	4.4	10.5	0.29	3.73	41.0	105	2.09	0.113	0.104	10.6	0.52	4245	3559	288	85	D	G	0.1392	317.8	4.17	2185	14.9	302.0	3.96	1647	16.5	269.8	3.54	1302	17.5	223.2	2.93
75	81	2071	15.9	15.3	16.0	19.2	20.8	2.22	4.5	10.9	0.29	4.06	41.3	104	2.20	0.115	0.106	10.3	0.53	4221	3559	280	84	D	G	0.1597	330.7	4.07	2002	15.7	316.1	3.89	1595	17.1	289.1	3.56	1316	18.0	247.7	3.05
80	86	1888	16.7	16.1	16.5	19.7	21.3	2.30	4.7	11.3	0.29	4.38	41.4	102	2.30	0.117	0.108	10.1	0.53	4190	3559	273	83	D	G	0.1810	341.7	3.96	1838	16.4	328.0	3.80	1528	17.6	304.9	3.53	1304	18.4	268.4	3.11
85	91	1730	17.5	16.8	17.0	20.2	21.9	2.39	4.8	11.7	0.29	4.71	41.5	101	2.40	0.119	0.110	9.9	0.53	4155	3559	265	82	D	G	0.2029	351.0	3.84	1693	17.1	338.2	3.70	1455	18.2	318.0	3.48	1275	18.9	285.9	3.13
90	96	1592	18.2	17.5	17.5	20.7	22.3	2.47	5.0	12.0	0.29	5.04	41.4	100	2.51	0.121	0.112	9.7	0.53	4118	3559	258	80	D	G	0.2253	358.6	3.72	1565	17.7	346.5	3.60	1379	18.8	328.6	3.41	1234	19.5	300.2	3.12
95	101	1472	18.9	18.2	17.9	21.1	22.8	2.55	5.1	12.3	0.29	5.37	41.3	98	2.61	0.124	0.114	9.5	0.53	4079	3559	251	79	D	G	0.2480	365.1	3.60	1451	18.4	353.6	3.49	1306	19.3	337.6	3.33	1189	20.0	312.4	3.08
100	106	1367	19.6	18.9	18.3	21.5	23.2	2.63	5.3	12.6	0.29	5.69	41.1	97	2.70	0.126	0.117	9.3	0.53	4040	3559	245	78	D	G	0.2711	370.6	3.49	1351	19.1	359.5	3.38	1236	19.9	344.9	3.24	1140	20.5	322.4	3.03
105	111	1274	20.2	19.5	18.7	21.9	23.6	2.70	5.4	12.9	0.29	6.01	40.9	96	2.80	0.128	0.119	9.1	0.53	4001	3559	238	77	D	G	0.2943	374.9	3.37	1262	19.7	364.3	3.27	1169	20.4	350.8	3.15	1091	21.0	330.7	2.97
110	116	1192	20.9	20.2	19.1	22.2	23.9	2.77	5.5	13.1	0.29	6.33	40.7	95	2.90	0.130	0.121	8.9	0.53	3964	3559	233	75	D	G	0.3175	378.5	3.25	1183	20.3	368.3	3.17	1108	21.0	355.8	3.06	1043	21.5	337.6	2.90
115	121	1119	21.5	20.8	19.4	22.5	24.3	2.84	5.6	13.3	0.29	6.65	40.5	94	2.99	0.133	0.123	8.7	0.52	3927	3559	227	74	D	G	0.3408	381.3	3.14	1112	20.9	371.5	3.06	1051	21.5	359.7	2.97	997	21.9	343.2	2.83
120	126	1054	22.1	21.4	19.7	22.9	24.6	2.91	5.8	13.5	0.30	6.96	40.3	93	3.08	0.135	0.125	8.6	0.52	3893	3559	222	73	D	G	0.3639	383.6	3.04	1048	21.4	374.0	2.96	998	22.0	362.8	2.87	953	22.4	347.9	2.75
125	131	995	22.6	21.9	20.0	23.1	24.8	2.97	5.9	13.7	0.30	7.26	40.0	92	3.17	0.137	0.128	8.4	0.52	3860	3559	217	72	D	G	0.3869	385.0	2.93	990	22.0	375.7	2.86	949	22.5	365.0	2.78	911	22.9	351.3	2.68
130	136	943	23.2	22.5	20.3	23.4	25.1	3.03	6.0	13.8	0.30	7.57	39.8	91	3.26	0.139	0.130	8.3	0.52	3828	3559	213	71	D	G	0.4098	386.4	2.84	939	22.5	377.3	2.77	904	23.0	367.0	2.69	872	23.4	354.4	2.60
135	141	896	23.7	23.0	20.6	23.7	25.4	3.09	6.1	13.9	0.30	7.87	39.6	90	3.34	0.141	0.132	8.1	0.52	3799	3559	209	70	D	G	0.4323	387.3	2.74	893	23.0	378.5	2.68	864	23.5	368.6	2.61	836	23.8	356.9	2.53
140	146	853	24.2	23.5	20.9	23.9	25.6	3.15	6.2	14.1	0.30	8.16	39.4	89	3.42	0.143	0.134	8.0	0.51	3772	3559	204	70	C	G	0.4545	387.7	2.65	851	23.5	379.0	2.59	826	23.9	369.4	2.53	802	24.3	358.6	2.45
145	151	815	24.7	24.0	21.1	24.1	25.8	3.21	6.3	14.2	0.30	8.45	39.2	88	3.50	0.145	0.136	7.9	0.51	3746	3559	201	69	C	G	0.4764	388.3	2.57	813	24.0	379.8	2.51	792	24.4	370.4	2.45	771	24.7	360.4	2.38
150	156	780	25.2	24.5	21.3	24.3	26.0	3.26	6.4	14.2	0.31	8.73	39.0	87	3.58	0.147	0.138	7.8	0.51	3723	3559	198	68	C	G	0.4979	388.4	2.49	778	24.5	380.1	2.43	760	24.9	370.9	2.37	742	25.1	361.5	2.31
155	161	748	25.7	24.9	21.5	24.5	26.2	3.31	6.5	14.3	0.31	9.01	38.8	86	3.66	0.149	0.139	7.7	0.51	3701	3559	194	67	C	G	0.5191	388.3	2.41	747	25.0	380.1	2.36	731	25.3	371.1	2.30	715	25.6	362.3	2.25
160	166	719	26.2	25.4	21.8	24.7	26.4	3.37	6.6	14.4	0.31	9.29	38.6	85	3.73	0.151	0.141	7.6	0.51	3681	3559	191	67	C	G	0.5398	388.1	2.33	718	25.4	380.1	2.29	704	25.7	371.2	2.23	691	26.0	363.0	2.18
165	171	692	26.6	25.8	21.9	24.9	26.6	3.41	6.7	14.4	0.31	9.56	38.5	84	3.80	0.153	0.143	7.5	0.51	3663	3559	188	66	C	G	0.5600	387.5	2.26	691	25.9	379.6	2.22	679	26.1	371.0	2.17	667	26.4	363.2	2.12
170	176	667	27.0	26.3	22.1	25.1	26.8	3.46	6.7	14.5	0.31	9.83	38.3	83	3.87	0.154	0.145	7.4	0.50	3646	3559	186	66	C	G	0.5799	386.8	2.19	666	26.3	378.9	2.15	656	26.5	370.5	2.10	645	26.8	363.1	2.06
175	181	645	27.5	26.7	22.3	25.2	26.9	3.51	6.8	14.5	0.32	10.09	38.2	82	3.94	0.156	0.146	7.3	0.50	3632	3559	183	65	C	G	0.5992	386.5	2.13	644	26.7	378.8	2.09	635	26.9	370.4	2.04	626	27.1	363.5	2.01
180	186	624	27.9	27.1	22.5	25.4	27.1	3.55	6.9	14.6	0.32	10.35	38.0	82	4.00	0.158	0.148	7.2	0.50	3618	3559	181	65	C	G	0.6181	385.7	2.07	624	27.1	378.1	2.03	615	27.3	369.8	1.99	607	27.5	363.2	1.95
		SI = 17 m Initial Density = 15000 stems/ha																																						
5	11	14579	1.2	1.1	2.2	3.0	3.1	0.69	1.4	0.6	0.67	0.37	1.7	207	0.83	0.279	0.263	1.6	0.02	1927	4685	104	54	C	G	0.0001	1.9	0.17	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	13628	2.5	2.4	3.5	4.8	5.2	0.78	1.8	1.4	0.54	0.48	6.9	151	0.86	0.179	0.166	4.3	0.08	2537	4685	186	65	C	G	0.0009	12.2	0.75	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	12337	3.7	3.5	4.8	6.6	7.1	0.88	2.0	2.4	0.45	0.61	13.3	138	0.90	0.137	0.126	6.9	0.16	3133	4685	256	76	D	G	0.0027	32.9	1.55	11	7.9	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	10913	4.8	4.5	6.1	8.2	9.0	0.98	2.3	3.3	0.40	0.78	19.8	132	0.96	0.116	0.106	9.0	0.24	3647	4685	309	85	D	G	0.0057	62.1	2.36	475	8.1	6.3	0.24	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	31	9517	5.9	5.5	7.2	9.8	10.7	1.09	2.4	4.2	0.36	0.97	25.7	128	1.03	0.105	0.096	10.6	0.32	4055	4685	345	92	D	G	0.0101	96.2	3.07	1787	8.4	30.9	0.99	3	12.6	0.2	0.01	0	0.0	0.0	0.00
30	36	8240	6.9	6.5	8.4	11.1	12.2	1.20	2.6	5.1	0.33	1.17	30.7	124	1.10	0.099	0.090	11.7	0.39	4357	4685	366	97	D	G	0.0160	132.0	3.64	3127	8.8	70.2	1.93	50	12.8	3.1	0.09	3	14.4	0.2	0.01
35	41	7122	7.9	7.5	9.4	12.4	13.6	1.31	2.8	5.9	0.32	1.40	34.7	122	1.18	0.096	0.087	12.4	0.44	4566	4685	377	100	D	G	0.0235	167.1	4.05	3831	9.3	112.8	2.73	233	13.0	16.2	0.39	32	14.6	2.5	0.06
40	46	6167	8.8	8.4	10.3	13.5	14.9	1.41	3.0	6.6	0.31	1.64	37.8	119	1.27	0.094	0.086	12.7	0.48	4702	4685	379	101	D	G	0.0324	200.1	4.32	4074	9.9	153.9	3.32	566	13.3	44.0	0.95	136	14.8	11.8	0.25
45	51	5361	9.8	9.3	11.2	14.5	16.0	1.52	3.2	7.3	0.30	1.90	40.1	117	1.37	0.094	0.085	12.8	0.51	4781	4685	376	102	D	G	0.0429	230.1	4.49	4025	10.6	191.2	3.73	1007	13.6	85.9	1.67	333	15.1	32.1	0.63
50	56	4685	10.7	10.2	12.0	15.4	17.0	1.62	3.3	8.0	0.29	2.16	41.9	115	1.46	0.095	0.086	12.8	0.53	4817	4685	369	101	D	G	0.0548	256.9	4.56	3824	11.2	223.8	3.98	1364	14.0	129.5	2.30	589	15.4	62.4	1.11
55	61	4119	11.5	11.0	12.8	16.3	17.9	1.72	3.5	8.6	0.29	2.43	43.1	113	1.56	0.096	0.087	12.7	0.55	4822	4685	361	100	D	G	0.0681	280.5	4.58	3555	11.9	252.0	4.11	1624	14.4	171.6	2.80	883	15.7	101.4	1.65
60	66	3644	12.4	11.9	13.5	17.0	18.7	1.81	3.7	9.1	0.28	2.72	43.9	111	1.66	0.097	0.088	12.5	0.56	4803	4685	351	99	D	G	0.0826	301.0	4.54	3265	12.6	276.1	4.17	1780	14.8	209.2	3.16	1101	16.0	139.4	2.10
65	71	3244	13.2	12.7	14.1	17.7	19.5	1.91	3.8	9.6	0.28	3.00	44.5	109	1.76	0.099	0.090	12.2	0.57	4769	4685	341	97	D	G	0.0982	318.7	4.47	2989	13.3	296.6	4.16	1856	15.3	241.5	3.39	1265	16.4	175.6	2.46
70	76	2906	14.0	13.4	14.7	18.4	20.2	2.00	4.0	10.1	0.28	3.29	44.8	108	1.86	0.101	0.092	12.0	0.57	4724	4685	330	96	D	G	0.1149	333.8	4.38	2728	13.9	314.0	4.12	1867	15.8	268.4	3.52	1369	16.8	208.1	2.73
75	81	2618	14.8	14.2	15.3	19.0	20.8	2.08	4.2	10.5	0.28	3.59	44.9	106	1.95	0.103	0.094	11.7	0.58	4671	4685	320	94	D	G	0.1324	346.7	4.27	2492	14.6	328.6	4.04	1835	16.3	290.7	3.58	1424	17.2	236.6	2.91
80	86	2372	15.5	14.9	15.8	19.5	21.3	2.17	4.3	10.9	0.28	3.88	44.9	105	2.05	0.105	0.096	11.4	0.58	4614	4685	310	92	D	G	0.1507	357.5	4.14	2280	15.3	340.9	3.95	1775	16.8	309.0	3.58	1438	17.7	260.8	3.02
85	91	2161	16.2	15.6	16.3	20.0	21.9	2.25	4.5	11.3	0.28	4.18	44.8	104	2.15	0.108	0.098	11.1	0.58	4555	4685	300	90	D	G	0.1696	366.6	4.02	2093	15.9	351.2	3.85	1703	17.3	323.9	3.55	1428	18.1	281.3	3.08
90	96	1978	16.9	16.3	16.7	20.4	22.3	2.33	4.6	11.6	0.28	4.48	44.6	102	2.25	0.110	0.101	10.8	0.57	4495	4685	291	89	D	G	0.1891	374.1	3.89	1929	16.6	359.7	3.74	1624	17.8	336.1	3.49	1400	18.6	298.3	3.10
95	101	1819	17.6	17.0	17.2	20.9	22.8	2.41	4.8	12.0	0.28	4.78	44.3	101	2.34	0.112	0.103	10.6	0.57	4435	4685	282	87	D	G	0.2091	380.3	3.75	1782	17.2	366.8	3.62	1543	18.3	346.0	3.42	1360	19.0	312.5	3.09
100	106	1681	18.3	17.6	17.6	21.3	23.2	2.48	4.9	12.2	0.28	5.07	44.0	100	2.44	0.115	0.105	10.3	0.57	4376	4685	274	85	D	G	0.2293	385.4	3.63	1653	17.8	372.6	3.51	1463	18.8	354.0	3.33	1314	19.5	324.2	3.05
105	111	1559	18.9	18.2	17.9	21.6	23.6	2.55	5.0	12.5	0.28	5.37	43.7	99	2.53	0.117	0.107	10.1	0.56	4318	4685	266	84	D	G	0.2498	389.4	3.50	1537	18.4	377.2	3.39	1384	19.3	360.4	3.24	1261	19.9	333.8	3.00
110	116	1451	19.5	18.8	18.3	22.0	23.9	2.62	5.2	12.7	0.29	5.66	43.4	97	2.63	0.119	0.110	9.8	0.56	4263	4685	259	82	D	G	0.2706	392.7	3.38	1431	19.0	381.0	3.28	1309	19.8	365.6	3.14	1208	20.4	341.7	2.94
115	121	1356	20.1	19.4	18.6	22.3	24.3	2.69	5.3	13.0	0.29	5.95	43.1	96	2.72	0.122	0.112	9.6	0.56	4210	4685	252	81	D	G	0.2914	395.1	3.26	1342	19.6	383.9	3.17	1242	20.3	369.7	3.05	1158	20.9	348.2	2.87
120	126	1272	20.7	20.0	18.9	22.6	24.6	2.75	5.4	13.1	0.29	6.24	42.7	95	2.80	0.124	0.114	9.4	0.55	4160	4685	245	79	D	G	0.3121	397.0	3.14	1259	20.1	386.2	3.06	1177	20.8	372.8	2.95	1106	21.3	353.4	2.80
125	131	1196	21.2	20.5	19.2	22.9	24.8	2.81	5.5	13.3	0.29	6.53	42.4	94	2.89	0.126	0.116	9.2	0.55	4112	4685	239	78	D	G	0.3330	398.3	3.03	1189	20.7	387.8	2.95	1120	21.3	375.3	2.86	1061	21.8	357.6	2.72
130	136	1129	21.8	21.1	19.5	23.1	25.1	2.88	5.6	13.5	0.29	6.81	42.1	93	2.98	0.129	0.119	9.0	0.55	4067	4685	234	77	D	G	0.3535	399.1	2.93	1121	21.2	389.0	2.85	1064	21.8	377.1	2.77	1014	22.2	360.9	2.65
135	141	1068	22.3	21.6	19.8	23.4	25.4	2.93	5.7	13.6	0.29	7.09	41.7	92	3.06	0.131	0.121	8.8	0.54	4024	4685	228	76	D	G	0.3742	399.6	2.83	1062	21.7	389.7	2.76	1015	22.2	378.4	2.68	972	22.6	363.5	2.57
140	146	1013	22.8	22.1	20.0	23.6	25.6	2.99	5.8	13.7	0.30	7.36	41.4	91	3.14	0.133	0.123	8.7	0.54	3984	4685	224	75	D	G	0.3946	399.7	2.73	1009	22.2	390.1	2.67	969	22.7	379.2	2.59	932	23.1	365.5	2.50
145	151	964	23.3	22.6	20.3	23.8	25.8	3.05	5.9	13.9	0.30	7.63	41.1	90	3.22	0.135	0.125	8.5	0.54	3947	4685	219	74	D	G	0.4144	399.5	2.64	958	22.7	390.2	2.58	923	23.1	379.7	2.51	892	23.5	367.0	2.43
150	156	919	23.8	23.0	20.5	24.0	26.0	3.10	6.0	14.0	0.30	7.90	40.8	89	3.30	0.137	0.127	8.4	0.53	3912	4685	215	73	D	G	0.4343	399.1	2.55	915	23.1	390.0	2.50	886	23.5	379.9	2.43	858	23.9	368.1	2.36
155	161	878	24.3	23.5	20.7	24.2	26.2	3.15	6.1	14.0	0.30	8.17	40.6	88	3.37	0.139	0.129	8.2	0.53	3879	4685	211	72	D	G	0.4539	398.5	2.47	875	23.6	389.6	2.42	850	24.0	379.8	2.35	826	24.3	368.8	2.29
160	166	841	24.7	24.0	20.9	24.4	26.4	3.20	6.2	14.1	0.30	8.43	40.3	87	3.45	0.141	0.131	8.1	0.53	3849	4685	207	71	D	G	0.4730	397.8	2.39	836	24.0	389.1	2.34	814	24.4	379.4	2.28	794	24.7	369.2	2.22
165	171	806	25.2	24.4	21.1	24.6	26.6	3.25	6.3	14.2	0.31	8.69	40.1	86	3.52	0.143	0.132	8.0	0.52	3820	4685	203	70	D	G	0.4924	396.9	2.32	805	24.4	388.3	2.27	785	24.8	378.9	2.21	767	25.1	369.3	2.16
170	176	775	25.6	24.8	21.3	24.8	26.8	3.30	6.4	14.2	0.31	8.94	39.8	86	3.59	0.145	0.134	7.9	0.52	3794	4685	200	69	C	G	0.5108	395.9	2.25	772	24.9	387.5	2.20	755	25.2	378.3	2.15	737	25.5	369.2	2.09
175	181	746	26.0	25.2	21.5	24.9	26.9	3.35	6.5	14.3	0.31	9.19	39.6	85	3.66	0.147	0.136	7.8	0.52	3770	4685	197	69	C	G	0.5292	394.8	2.18	746	25.3	386.5	2.13	730	25.6	377.5	2.08	715	25.8	368.9	2.03
180	186	720	26.4	25.6	21.6	25.1	27.1	3.39	6.6	14.3	0.31	9.44	39.4	84	3.73	0.149	0.138	7.7	0.51	3748	4685	194	68	C	G	0.5467	393.6	2.11	717	25.7	385.5	2.07	704	26.0	376.6	2.02	691	26.2	368.5	1.98

Table A89. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh	Total	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
age	age	N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 17 m Initial Density = 20000 stems/ha																																								
5	11	19378	1.1	1.0	2.1	3.0	3.1	0.68	1.3	0.7	0.65	0.37	1.9	223	0.72	0.243	0.228	1.8	0.03	2492	5712	129	71	D	G	0.0001	2.0	0.18	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	17980	2.3	2.2	3.4	4.8	5.2	0.76	1.6	1.4	0.52	0.46	7.7	159	0.75	0.156	0.144	5.0	0.09	3170	5712	225	82	D	G	0.0007	13.1	0.80	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	16107	3.4	3.2	4.7	6.5	7.1	0.85	1.9	2.3	0.44	0.58	14.8	144	0.79	0.120	0.110	8.0	0.18	3803	5712	305	93	D	G	0.0022	35.3	1.66	2	7.9	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	14080	4.5	4.2	5.9	8.2	9.0	0.95	2.1	3.2	0.38	0.72	22.0	137	0.84	0.103	0.094	10.4	0.28	4324	5712	364	102	D	G	0.0047	66.2	2.52	280	8.0	3.5	0.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	31	12133	5.5	5.1	7.0	9.7	10.7	1.05	2.3	4.1	0.35	0.89	28.3	132	0.91	0.094	0.085	12.1	0.36	4715	5712	401	108	D	G	0.0084	101.8	3.25	1495	8.2	23.7	0.76	1	12.5	0.0	0.00	0	0.0	0.0	0.00
30	36	10389	6.4	6.1	8.1	11.1	12.2	1.15	2.4	4.9	0.32	1.08	33.6	128	0.98	0.089	0.080	13.3	0.43	4987	5712	422	112	D	G	0.0134	138.9	3.83	3082	8.5	61.9	1.71	19	12.7	1.1	0.03	1	14.3	0.0	0.00
35	41	8890	7.3	7.0	9.1	12.3	13.6	1.25	2.6	5.7	0.31	1.28	37.7	125	1.06	0.086	0.078	13.9	0.48	5160	5712	430	114	D	G	0.0197	174.9	4.24	4073	9.0	106.2	2.57	128	12.9	8.6	0.21	12	14.5	0.9	0.02
40	46	7629	8.3	7.8	10.0	13.4	14.9	1.35	2.8	6.4	0.30	1.49	40.9	122	1.14	0.085	0.077	14.2	0.52	5258	5712	430	114	D	G	0.0273	208.5	4.50	4521	9.6	150.0	3.24	394	13.1	29.3	0.63	69	14.7	5.8	0.13
45	51	6581	9.1	8.7	10.8	14.4	16.0	1.45	2.9	7.1	0.29	1.72	43.2	119	1.23	0.085	0.077	14.3	0.55	5300	5712	423	113	D	G	0.0363	239.0	4.66	4577	10.1	189.8	3.70	822	13.3	66.4	1.29	211	14.9	19.5	0.38
50	56	5712	10.0	9.5	11.6	15.3	17.0	1.54	3.1	7.7	0.28	1.97	44.9	117	1.32	0.086	0.078	14.2	0.58	5301	5712	414	112	D	G	0.0466	266.0	4.73	4408	10.7	224.7	3.99	1224	13.7	109.2	1.94	436	15.2	43.9	0.78
55	61	4991	10.8	10.4	12.3	16.2	17.9	1.64	3.3	8.3	0.28	2.21	46.1	115	1.42	0.088	0.079	14.0	0.59	5273	5712	402	111	D	G	0.0580	289.7	4.73	4130	11.4	254.6	4.15	1555	14.0	153.2	2.50	733	15.4	79.3	1.29
60	66	4392	11.7	11.1	13.0	16.9	18.7	1.73	3.4	8.8	0.28	2.47	46.8	113	1.51	0.089	0.081	13.7	0.60	5225	5712	390	109	D	G	0.0707	310.3	4.68	3813	12.0	280.0	4.22	1788	14.4	194.1	2.93	988	15.7	116.7	1.76
65	71	3890	12.4	11.9	13.6	17.6	19.5	1.82	3.6	9.3	0.27	2.73	47.3	111	1.60	0.091	0.082	13.4	0.61	5164	5712	377	106	D	G	0.0843	328.0	4.60	3496	12.6	301.5	4.23	1924	14.8	230.0	3.23	1198	16.0	154.2	2.16
70	76	3469	13.2	12.7	14.2	18.2	20.2	1.90	3.7	9.8	0.27	3.00	47.5	110	1.70	0.093	0.084	13.1	0.61	5094	5712	364	104	D	G	0.0989	343.2	4.50	3193	13.3	319.5	4.19	1981	15.3	260.3	3.41	1349	16.4	189.2	2.48
75	81	3113	13.9	13.4	14.7	18.8	20.8	1.99	3.9	10.2	0.27	3.27	47.5	108	1.79	0.095	0.086	12.7	0.61	5019	5712	352	102	D	G	0.1144	356.0	4.38	2918	13.9	334.7	4.12	1983	15.7	285.6	3.51	1445	16.8	220.6	2.71
80	86	2809	14.7	14.1	15.3	19.3	21.3	2.07	4.1	10.6	0.27	3.54	47.4	107	1.89	0.098	0.088	12.4	0.61	4941	5712	339	100	D	G	0.1305	366.7	4.25	2668	14.5	347.4	4.03	1946	16.2	306.3	3.55	1497	17.2	247.7	2.87
85	91	2549	15.4	14.8	15.7	19.8	21.9	2.15	4.2	11.0	0.27	3.82	47.2	106	1.98	0.100	0.091	12.0	0.61	4862	5712	328	97	D	G	0.1474	375.7	4.12	2446	15.1	358.0	3.92	1884	16.7	323.1	3.54	1513	17.6	270.9	2.97
90	96	2325	16.0	15.4	16.2	20.3	22.3	2.23	4.3	11.3	0.27	4.09	46.9	104	2.07	0.102	0.093	11.7	0.60	4785	5712	317	95	D	G	0.1648	383.2	3.98	2250	15.7	366.7	3.81	1808	17.1	336.8	3.50	1502	18.0	290.4	3.02
95	101	2132	16.7	16.1	16.6	20.7	22.8	2.30	4.5	11.6	0.28	4.37	46.6	103	2.17	0.105	0.095	11.4	0.60	4708	5712	307	93	D	G	0.1826	389.2	3.84	2072	16.3	373.9	3.69	1724	17.6	347.9	3.43	1472	18.4	306.6	3.03
100	106	1963	17.3	16.7	17.0	21.1	23.2	2.37	4.6	11.9	0.28	4.64	46.2	102	2.26	0.107	0.097	11.1	0.60	4634	5712	297	91	D	G	0.2008	394.1	3.71	1918	16.9	379.7	3.57	1641	18.1	356.9	3.36	1433	18.8	320.1	3.01
105	111	1815	17.9	17.3	17.3	21.4	23.6	2.44	4.8	12.2	0.28	4.92	45.8	101	2.35	0.110	0.100	10.8	0.59	4563	5712	288	89	D	G	0.2193	398.0	3.58	1781	17.5	384.4	3.45	1557	18.5	364.0	3.27	1385	19.2	331.2	2.98
110	116	1685	18.5	17.9	17.7	21.8	23.9	2.51	4.9	12.4	0.28	5.19	45.4	99	2.44	0.112	0.102	10.5	0.59	4494	5712	280	87	D	G	0.2380	401.1	3.45	1658	18.1	388.1	3.34	1478	19.0	369.7	3.18	1334	19.7	340.3	2.93
115	121	1570	19.1	18.4	18.0	22.1	24.3	2.57	5.0	12.6	0.28	5.46	45.0	98	2.52	0.114	0.104	10.3	0.58	4429	5712	272	86	D	G	0.2569	403.3	3.33	1547	18.6	391.0	3.22	1400	19.5	374.2	3.09	1281	20.1	347.7	2.87
120	126	1468	19.7	19.0	18.3	22.4	24.6	2.64	5.1	12.8	0.28	5.73	44.5	97	2.61	0.117	0.106	10.0	0.58	4367	5712	264	84	D	G	0.2759	405.0	3.21	1448	19.1	393.1	3.11	1328	19.9	377.6	2.99	1227	20.5	353.7	2.80
125	131	1377	20.2	19.5	18.6	22.7	24.8	2.70	5.3	13.0	0.28	6.00	44.1	96	2.69	0.119	0.108	9.8	0.57	4308	5712	257	83	D	G	0.2949	406.1	3.09	1361	19.7	394.6	3.01	1262	20.4	380.2	2.90	1178	20.9	358.6	2.73
130	136	1296	20.7	20.0	18.8	22.9	25.1	2.76	5.4	13.2	0.29	6.26	43.7	95	2.78	0.121	0.111	9.6	0.57	4252	5712	251	81	D	G	0.3138	406.7	2.98	1285	20.2	395.7	2.90	1201	20.9	382.1	2.80	1130	21.4	362.4	2.66
135	141	1222	21.2	20.5	19.1	23.2	25.4	2.81	5.5	13.3	0.29	6.53	43.3	94	2.86	0.123	0.113	9.4	0.56	4200	5712	245	80	D	G	0.3330	406.9	2.88	1213	20.7	396.2	2.80	1143	21.3	383.5	2.71	1082	21.8	365.4	2.59
140	146	1157	21.7	21.0	19.3	23.4	25.6	2.87	5.6	13.5	0.29	6.79	42.9	93	2.94	0.126	0.115	9.2	0.56	4150	5712	239	79	D	G	0.3516	406.8	2.78	1149	21.1	396.4	2.71	1089	21.7	384.3	2.63	1037	22.2	367.7	2.51
145	151	1097	22.2	21.5	19.6	23.6	25.8	2.93	5.7	13.6	0.29	7.04	42.6	92	3.02	0.128	0.117	9.0	0.55	4104	5712	234	77	D	G	0.3705	406.4	2.69	1089	21.6	396.3	2.62	1039	22.2	384.7	2.54	993	22.6	369.4	2.44
150	156	1043	22.7	22.0	19.8	23.8	26.0	2.98	5.8	13.7	0.29	7.30	42.2	91	3.10	0.130	0.119	8.9	0.55	4060	5712	229	76	D	G	0.3890	405.7	2.60	1037	22.1	395.9	2.53	994	22.6	384.8	2.46	954	23.0	370.6	2.37
155	161	994	23.2	22.4	20.0	24.0	26.2	3.03	5.9	13.8	0.30	7.55	41.9	90	3.17	0.132	0.121	8.7	0.54	4019	5712	224	75	D	G	0.4072	404.8	2.51	990	22.5	395.3	2.45	953	23.0	384.5	2.38	919	23.4	371.4	2.30
160	166	950	23.6	22.9	20.2	24.2	26.4	3.08	6.0	13.9	0.30	7.80	41.6	89	3.24	0.134	0.123	8.6	0.54	3981	5712	219	74	D	G	0.4251	403.8	2.43	944	22.9	394.5	2.37	912	23.4	384.1	2.31	882	23.7	371.8	2.24
165	171	909	24.0	23.3	20.4	24.4	26.6	3.13	6.1	13.9	0.30	8.05	41.3	88	3.32	0.136	0.125	8.4	0.54	3945	5712	215	73	D	G	0.4429	402.6	2.35	906	23.4	393.5	2.30	878	23.8	383.4	2.24	852	24.1	372.0	2.17
170	176	871	24.5	23.7	20.6	24.5	26.8	3.17	6.1	14.0	0.30	8.29	41.0	87	3.39	0.138	0.127	8.3	0.53	3912	5712	211	72	D	G	0.4608	401.4	2.28	867	23.8	392.4	2.23	842	24.2	382.5	2.17	818	24.5	371.7	2.11
175	181	837	24.9	24.1	20.7	24.7	26.9	3.22	6.2	14.0	0.30	8.53	40.7	86	3.46	0.140	0.128	8.2	0.53	3881	5712	208	71	D	G	0.4779	400.0	2.21	835	24.2	391.2	2.16	812	24.6	381.5	2.10	791	24.9	371.4	2.05
180	186	805	25.3	24.5	20.9	24.9	27.1	3.27	6.3	14.1	0.31	8.77	40.5	85	3.52	0.142	0.130	8.0	0.52	3852	5712	204	71	D	G	0.4950	398.5	2.14	802	24.6	389.9	2.09	782	24.9	380.5	2.04	764	25.2	370.9	1.99
SI = 17 m Initial Density = 30000 stems/ha																																								
5	11	28937	1.0	0.9	2.0	2.9	3.1	0.68	1.2	0.7	0.63	0.36	2.1	252	0.59	0.200	0.187	2.1	0.03	3589	7587	174	104	D	G	0.0001	2.1	0.19	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	26561	2.1	1.9	3.2	4.8	5.2	0.74	1.5	1.4	0.50	0.43	8.8	171	0.61	0.129	0.119	6.1	0.11	4358	7587	294	115	D	G	0.0005	14.3	0.88	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	23440	3.0	2.8	4.4	6.5	7.1	0.82	1.7	2.3	0.41	0.53	17.1	153	0.65	0.100	0.091	9.8	0.22	5015	7587	390	125	D	G	0.0016	38.3	1.80	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	20154	4.0	3.7	5.6	8.1	9.0	0.90	1.8	3.1	0.36	0.65	25.1	144	0.70	0.087	0.078	12.6	0.32	5506	7587	456	132	D	G	0.0035	71.3	2.71	89	7.8	1.0	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	31	17087	4.9	4.6	6.6	9.6	10.7	0.99	2.0	3.9	0.33	0.79	32.1	137	0.77	0.079	0.072	14.5	0.41	5834	7587	494	135	D	G	0.0064	108.7	3.47	941	8.0	13.2	0.42	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	36	14415	5.8	5.4	7.6	11.0	12.2	1.08	2.2	4.7	0.31	0.95	37.7	133	0.83	0.076	0.068	15.7	0.49	6029	7587	512	137	D	G	0.0102	147.0	4.05	2659	8.2	45.9	1.26	2	12.5	0.2	0.01	0	0.0	0.0	0.00
35	41	12172	6.6	6.3	8.6	12.2	13.6	1.17	2.3	5.4	0.30	1.12	42.1	129	0.91	0.074	0.067	16.3	0.55	6123	7587	516	136	D	G	0.0151	183.7	4.45	4086	8.6	89.9	2.18	37	12.7	2.4	0.06	1	14.3	0.1	0.00
40	46	10326	7.5	7.1	9.4	13.3	14.9	1.26	2.5	6.1	0.29	1.31	45.3	126	0.98	0.074	0.066	16.6	0.59	6144	7587	510	135	D	G	0.0211	217.7	4.70	4943	9.1	136.5	2.95	177	12.9	12.5	0.27	17	14.5	1.4	0.03
45	51	8818	8.3	7.9	10.2	14.3	16.0	1.35	2.6	6.7	0.28	1.50	47.6	123	1.06	0.075	0.067	16.5	0.62	6116	7587	499	133	D	G	0.0281	248.2	4.84	5270	9.6	179.9	3.51	503	13.0	38.0	0.74	81	14.7	7.0	0.14
50	56	7587	9.1	8.6	10.9	15.2	17.0	1.44	2.8	7.3	0.27	1.71	49.2	120	1.15	0.076	0.068	16.3	0.64	6053	7587	484	130	D	G	0.0363	275.2	4.89	5239	10.1	218.1	3.87	900	13.3	74.1	1.32	222	14.9	21.0	0.37
55	61	6579	9.9	9.4	11.6	16.0	17.9	1.53	3.0	7.8	0.27	1.92	50.2	118	1.23	0.077	0.069	16.0	0.65	5968	7587	468	127	D	G	0.0454	298.8	4.88	5010	10.6	250.8	4.09	1301	13.6	116.6	1.90	470	15.0	46.8	0.76
60	66	5750	10.6	10.1	12.3	16.7	18.7	1.61	3.1	8.3	0.27	2.14	50.9	116	1.32	0.079	0.070	15.6	0.66	5870	7587	451	123	D	G	0.0555	319.2	4.82	4685	11.2	278.4	4.20	1636	13.9	159.8	2.41	730	15.3	78.7	1.19
65	71	5062	11.3	10.8	12.8	17.4	19.5	1.69	3.3	8.8	0.27	2.37	51.2	114	1.41	0.081	0.072	15.2	0.66	5763	7587	434	120	D	G	0.0665	336.8	4.72	4326	11.7	301.5	4.23	1879	14.3	200.0	2.81	982	15.6	114.3	1.60
70	76	4488	12.1	11.5	13.4	18.0	20.2	1.77	3.4	9.3	0.27	2.60	51.2	113	1.49	0.083	0.074	14.8	0.66	5652	7587	417	117	D	G	0.0784	351.7	4.61	3972	12.3	320.9	4.21	2033	14.6	235.3	3.08	1198	15.9	150.4	1.97
75	81	4006	12.7	12.2	13.9	18.6	20.8	1.85	3.6	9.7	0.27	2.84	51.1	111	1.58	0.085	0.076	14.3	0.66	5541	7587	401	114	D	G	0.0909	364.3	4.48	3638	12.9	337.0	4.15	2110	15.0	265.4	3.26	1364	16.2	184.6	2.27
80	86	3598	13.4	12.9	14.4	19.1	21.3	1.93	3.7	10.1	0.27	3.08	50.9	110	1.67	0.087	0.078	13.9	0.66	5430	7587	386	111	D	G	0.1042	374.9	4.34	3333	13.4	350.4	4.06	2128	15.4	290.4	3.37	1481	16.5	215.6	2.50
85	91	3250	14.1	13.5	14.8	19.5	21.9	2.00	3.9	10.4	0.27	3.32	50.5	108	1.75	0.090	0.080	13.5	0.65	5321	7587	372	108	D	G	0.1181	383.7	4.20	3052	14.0	361.5	3.96	2102	15.8	311.0	3.41	1548	16.8	242.8	2.66
90	96	2952	14.7	14.1	15.2	20.0	22.3	2.07	4.0	10.8	0.27	3.56	50.1	107	1.84	0.092	0.082	13.1	0.65	5216	7587	358	105	D	G	0.1325	391.0	4.06	2805	14.6	370.7	3.85	2051	16.2	327.8	3.40	1583	17.2	266.2	2.76
95	101	2694	15.3	14.7	15.6	20.4	22.8	2.14	4.1	11.1	0.27	3.80	49.6	106	1.93	0.094	0.085	12.7	0.64	5114	7587	345	102	D	G	0.1473	396.9	3.92	2582	15.1	378.2	3.73	1980	16.6	341.4	3.37	1587	17.6	286.1	2.82
100	106	2471	15.9	15.3	16.0	20.8	23.2	2.21	4.3	11.3	0.27	4.04	49.1	104	2.01	0.097	0.087	12.3	0.64	5017	7587	334	100	D	G	0.1625	401.6	3.78	2386	15.6	384.2	3.61	1904	17.1	352.3	3.31	1573	17.9	302.8	2.85
105	111	2276	16.5	15.9	16.3	21.1	23.6	2.28	4.4	11.6	0.27	4.29	48.6	103	2.10	0.099	0.089	12.0	0.63	4924	7587	322	98	D	G	0.1781	405.4	3.64	2207	16.2	389.1	3.50	1818	17.5	361.1	3.24	1541	18.3	316.7	2.85
110	116	2105	17.1	16.4	16.7	21.5	23.9	2.34	4.5	11.9	0.27	4.53	48.1	102	2.18	0.102	0.091	11.6	0.62	4835	7587	312	95	D	G	0.1939	408.2	3.51	2052	16.7	392.9	3.38	1735	17.9	368.1	3.17	1501	18.7	328.3	2.82
115	121	1954	17.6	17.0	17.0	21.8	24.3	2.40	4.6	12.1	0.27	4.77	47.5	101	2.26	0.104	0.093	11.3	0.62	4751	7587	302	93	D	G	0.2100	410.3	3.38	1913	17.2	395.8	3.26	1653	18.3	373.6	3.08	1456	19.0	337.7	2.78
120	126	1820	18.1	17.5	17.2	22.1	24.6	2.46	4.8	12.3	0.28	5.01	47.0	100	2.34	0.106	0.095	11.0	0.61	4671	7587	293	91	D	G	0.2262	411.7	3.26	1787	17.7	397.9	3.15	1574	18.7	377.8	2.99	1408	19.4	345.5	2.74
125	131	1701	18.7	18.0	17.5	22.3	24.8	2.52	4.9	12.5	0.28	5.25	46.5	99	2.42	0.109	0.098	10.8	0.60	4595	7587	285	89	D	G	0.2426	412.6	3.14	1672	18.2	399.4	3.04	1496	19.1	381.0	2.90	1355	19.8	351.8	2.68
130	136	1595	19.2	18.5	17.8	22.6	25.1	2.58	5.0	12.6	0.28	5.49	46.0	98	2.50	0.111	0.100	10.5	0.59	4523	7587	277	88	D	G	0.2589	413.0	3.03	1569	18.7	400.4	2.94	1422	19.6	383.4	2.81	1301	20.2	356.8	2.62
135	141	1500	19.7	19.0	18.0	22.8	25.4	2.63	5.1	12.8	0.28	5.73	45.5	97	2.58	0.113	0.102	10.3	0.59	4456	7587	270	86	D	G	0.2753	413.0	2.92	1482	19.1	400.9	2.84	1357	20.0	385.1	2.73	1254	20.5	360.8	2.55
140	146	1414	20.1	19.4	18.2	23.0	25.6	2.69	5.2	12.9	0.29	5.96	45.0	96	2.66	0.115	0.104	10.0	0.58	4392	7587	263	84	D	G	0.2918	412.6	2.82	1399	19.6	400.9	2.74	1293	20.4	386.1	2.64	1205	20.9	364.0	2.49
145	151	1337	20.6	19.9	18.5	23.3	25.8	2.74	5.3	13.1	0.29	6.20	44.6	95	2.73	0.118	0.106	9.8	0.58	4332	7587	256	83	D	G	0.3081	411.9	2.72	1324	20.0	400.6	2.65	1234	20.8	386.7	2.56	1157	21.3	366.3	2.42
150	156	1267	21.1	20.3	18.7	23.5	26.0	2.79	5.4	13.2	0.29	6.43	44.1	94	2.81	0.120	0.108	9.6	0.57	4275	7587	250	81	D	G	0.3244	411.0	2.63	1255	20.5	400.1	2.56	1178	21.1	386.8	2.47	1111	21.6	368.1	2.36
155	161	1203	21.5	20.8	18.9	23.6	26.2	2.84	5.5	13.3	0.29	6.66	43.7	93	2.88	0.122	0.110	9.4	0.56	4222	7587	245	80	D	G	0.3406	409.8	2.54	1194	20.9	399.2	2.48	1128	21.5	386.6	2.40	1070	22.0	369.3	2.29
160	166	1145	21.9	21.2	19.1	23.8	26.4	2.89	5.6	13.4	0.29	6.89	43.3	92	2.96	0.124	0.112	9.2	0.56	4172	7587	239	79	D	G	0.3568	408.5	2.46	1137	21.3	398.2	2.39	1079	21.9	386.2	2.32	1028	22.3	370.1	2.23
165	171	1093	22.4	21.6	19.2	24.0	26.6	2.94	5.7	13.4	0.29	7.11	42.9	91	3.02	0.126	0.114	9.1	0.55	4125	7587	234	78	D	G	0.3724	407.0	2.38	1086	21.7	397.0	2.32	1035	22.3	385.4	2.25	991	22.7	370.5	2.16
170	176	1044	22.8	22.0	19.4	24.2	26.8	2.98	5.8	13.5	0.30	7.34	42.5	90	3.09	0.128	0.116	8.9	0.55	4081	7587	230	77	D	G	0.3884	405.5	2.30	1038	22.1	395.7	2.24	993	22.7	384.4	2.18	952	23.1	370.3	2.10
175	181	1000	23.2	22.4	19.6	24.3	26.9	3.03	5.9	13.6	0.30	7.56	42.2	89	3.16	0.130	0.118	8.8	0.54	4040	7587	225	76	D	G	0.4038	403.8	2.23	995	22.5	394.2	2.17	956	23.0	383.3	2.11	920	23.4	370.2	2.04
180	186	959	23.6	22.8	19.7	24.5	27.1	3.07	5.9	13.6	0.30	7.78	41.8	88	3.23	0.132	0.119	8.6	0.54	4001	7587	221	75	D	G	0.4192	402.0	2.16	954	22.9	392.6	2.11	919	23.4	382.1	2.05	888	23.7	369.7	1.98

Table A90. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 17 m Initial Density = 50000 stems/ha																																								
5	11	47952	0.8	0.7	1.9	2.9	3.1	0.67	1.1	0.7	0.59	0.35	2.3	298	0.46	0.156	0.145	2.6	0.04	5709	10941	256	168	D	G	0.0000	2.2	0.19	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	43406	1.7	1.6	3.0	4.7	5.2	0.72	1.3	1.4	0.46	0.41	10.3	190	0.48	0.102	0.093	7.8	0.14	6551	10941	410	177	D	G	0.0004	15.5	0.95	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	37586	2.6	2.4	4.1	6.4	7.1	0.78	1.4	2.2	0.39	0.48	20.0	165	0.52	0.080	0.072	12.4	0.26	7147	10941	527	182	D	G	0.0011	41.4	1.94	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	31661	3.4	3.2	5.2	8.1	9.0	0.85	1.6	3.0	0.34	0.58	29.2	153	0.56	0.070	0.062	15.8	0.38	7494	10941	601	183	D	G	0.0024	76.1	2.89	8	7.7	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	31	26324	4.2	4.0	6.1	9.5	10.7	0.92	1.7	3.7	0.31	0.69	36.9	145	0.62	0.065	0.058	17.9	0.49	7645	10941	638	181	D	G	0.0044	114.6	3.66	306	7.8	3.8	0.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	36	21822	5.0	4.7	7.0	10.8	12.2	1.00	1.9	4.4	0.29	0.81	42.9	139	0.68	0.062	0.055	19.2	0.57	7659	10941	649	177	D	G	0.0070	153.2	4.22	1599	7.9	23.1	0.64	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	41	18151	5.8	5.4	7.9	12.0	13.6	1.08	2.0	5.0	0.28	0.95	47.4	135	0.74	0.062	0.054	19.7	0.63	7585	10941	644	172	D	G	0.0104	189.6	4.59	3312	8.2	59.3	1.44	3	12.5	0.2	0.00	0	0.0	0.0	0.00
40	46	15201	6.5	6.2	8.6	13.1	14.9	1.16	2.2	5.6	0.27	1.10	50.6	131	0.81	0.062	0.055	19.8	0.67	7458	10941	629	166	D	G	0.0147	222.9	4.82	4766	8.6	104.6	2.26	32	12.7	2.1	0.05	1	14.3	0.1	0.00
45	51	12838	7.2	6.9	9.3	14.1	16.0	1.24	2.3	6.1	0.27	1.25	52.8	127	0.88	0.063	0.055	19.6	0.70	7299	10941	609	161	D	G	0.0197	252.6	4.93	5658	9.0	150.5	2.93	161	12.7	11.3	0.22	10	14.5	0.9	0.02
50	56	10941	7.9	7.5	10.0	14.9	17.0	1.31	2.4	6.7	0.27	1.42	54.3	125	0.96	0.064	0.056	19.2	0.71	7125	10941	586	155	D	G	0.0255	278.6	4.95	6028	9.4	192.6	3.42	412	12.9	31.0	0.55	52	14.6	4.5	0.08
55	61	9409	8.6	8.2	10.6	15.7	17.9	1.39	2.6	7.1	0.26	1.59	55.1	122	1.03	0.066	0.058	18.8	0.72	6944	10941	562	150	D	G	0.0320	301.2	4.91	6031	9.8	229.0	3.74	759	13.2	61.4	1.00	165	14.7	15.1	0.25
60	66	8162	9.3	8.9	11.2	16.4	18.7	1.47	2.7	7.6	0.26	1.77	55.6	120	1.11	0.067	0.059	18.2	0.73	6762	10941	538	144	D	G	0.0393	320.8	4.84	5819	10.2	259.9	3.92	1141	13.4	98.8	1.49	338	14.9	32.9	0.50
65	71	7138	10.0	9.5	11.7	17.1	19.5	1.54	2.9	8.0	0.26	1.95	55.7	118	1.18	0.069	0.061	17.6	0.73	6583	10941	515	139	D	G	0.0473	337.5	4.73	5489	10.7	285.7	4.01	1493	13.7	138.6	1.94	557	15.1	57.8	0.81
70	76	6291	10.6	10.1	12.2	17.7	20.2	1.61	3.0	8.5	0.26	2.14	55.5	116	1.26	0.071	0.063	17.1	0.73	6408	10941	492	135	D	G	0.0559	351.8	4.61	5117	11.2	307.2	4.03	1782	13.9	177.2	2.32	795	15.3	87.5	1.15
75	81	5584	11.2	10.7	12.7	18.2	20.8	1.68	3.2	8.8	0.26	2.33	55.2	114	1.34	0.073	0.064	16.5	0.72	6240	10941	471	130	D	G	0.0652	363.8	4.48	4733	11.6	325.0	4.00	1992	14.2	212.5	2.61	1018	15.5	119.5	1.47
80	86	4989	11.8	11.3	13.1	18.7	21.3	1.75	3.3	9.2	0.26	2.53	54.8	113	1.42	0.076	0.066	15.9	0.71	6079	10941	452	126	D	G	0.0749	373.9	4.33	4364	12.1	339.7	3.94	2128	14.5	243.3	2.82	1213	15.8	151.4	1.75
85	91	4485	12.4	11.9	13.5	19.2	21.9	1.81	3.4	9.5	0.26	2.72	54.3	111	1.49	0.078	0.068	15.4	0.71	5926	10941	433	122	D	G	0.0853	382.4	4.19	4019	12.6	351.9	3.85	2201	14.8	269.7	2.95	1367	16.0	181.6	1.99
90	96	4054	13.0	12.4	13.9	19.6	22.3	1.88	3.5	9.9	0.26	2.92	53.7	110	1.57	0.080	0.070	14.9	0.70	5780	10941	416	118	D	G	0.0960	389.3	4.04	3703	13.1	361.8	3.76	2226	15.2	291.7	3.03	1483	16.3	209.1	2.17
95	101	3684	13.5	13.0	14.2	20.0	22.8	1.94	3.7	10.2	0.26	3.12	53.0	109	1.65	0.082	0.072	14.4	0.69	5642	10941	400	115	D	G	0.1072	394.9	3.90	3415	13.6	370.0	3.65	2211	15.5	310.0	3.06	1558	16.6	233.6	2.31
100	106	3363	14.1	13.5	14.5	20.4	23.2	2.00	3.8	10.4	0.26	3.32	52.4	108	1.72	0.085	0.074	14.0	0.68	5511	10941	385	112	D	G	0.1188	399.5	3.76	3155	14.0	376.6	3.54	2173	15.8	325.0	3.06	1605	16.9	254.9	2.40
105	111	3085	14.6	14.0	14.9	20.7	23.6	2.06	3.9	10.7	0.27	3.52	51.7	106	1.80	0.087	0.076	13.5	0.67	5387	10941	371	109	D	G	0.1306	403.0	3.62	2922	14.5	381.9	3.43	2115	16.2	337.2	3.03	1624	17.2	273.4	2.46
110	116	2841	15.1	14.5	15.2	21.0	23.9	2.12	4.0	10.9	0.27	3.73	51.0	105	1.88	0.089	0.078	13.1	0.66	5270	10941	358	106	D	G	0.1428	405.7	3.49	2711	14.9	386.1	3.32	2047	16.5	347.0	2.98	1623	17.5	289.0	2.49
115	121	2626	15.6	15.0	15.4	21.3	24.3	2.18	4.2	11.2	0.27	3.93	50.4	104	1.95	0.092	0.080	12.7	0.65	5159	10941	346	103	D	G	0.1552	407.6	3.36	2518	15.4	389.3	3.21	1972	16.9	354.9	2.93	1607	17.8	302.3	2.49
120	126	2437	16.1	15.5	15.7	21.6	24.6	2.23	4.3	11.4	0.27	4.13	49.7	103	2.03	0.094	0.082	12.4	0.64	5055	10941	335	101	D	G	0.1678	408.9	3.24	2350	15.8	391.7	3.10	1895	17.2	361.1	2.86	1580	18.1	313.4	2.48
125	131	2268	16.6	16.0	15.9	21.9	24.8	2.29	4.4	11.5	0.27	4.33	49.1	102	2.10	0.096	0.085	12.0	0.63	4956	10941	324	98	D	G	0.1806	409.6	3.12	2197	16.3	393.4	3.00	1816	17.6	366.0	2.79	1545	18.4	322.7	2.46
130	136	2118	17.1	16.4	16.2	22.1	25.1	2.34	4.5	11.7	0.27	4.53	48.4	101	2.17	0.098	0.087	11.7	0.62	4863	10941	314	96	D	G	0.1935	409.9	3.01	2059	16.7	394.5	2.89	1739	17.9	369.8	2.71	1504	18.7	330.3	2.42
135	141	1984	17.5	16.9	16.4	22.3	25.4	2.39	4.6	11.9	0.28	4.73	47.8	100	2.25	0.101	0.089	11.4	0.62	4775	10941	305	94	D	G	0.2065	409.7	2.90	1936	17.1	395.1	2.80	1664	18.3	372.6	2.64	1461	19.0	336.6	2.38
140	146	1864	18.0	17.3	16.6	22.5	25.6	2.44	4.7	12.0	0.28	4.93	47.2	99	2.32	0.103	0.090	11.1	0.61	4692	10941	296	92	D	G	0.2195	409.2	2.80	1823	17.5	395.2	2.70	1591	18.6	374.6	2.56	1414	19.3	341.7	2.34
145	151	1755	18.4	17.7	16.8	22.8	25.8	2.49	4.8	12.2	0.28	5.13	46.7	98	2.39	0.105	0.092	10.9	0.60	4614	10941	288	90	D	G	0.2327	408.4	2.70	1721	17.9	395.0	2.61	1523	19.0	375.9	2.48	1369	19.6	345.8	2.29
150	156	1657	18.8	18.1	17.0	22.9	26.0	2.54	4.9	12.3	0.28	5.33	46.1	97	2.46	0.107	0.094	10.6	0.59	4541	10941	281	88	D	G	0.2458	407.3	2.61	1630	18.3	394.4	2.52	1458	19.3	376.7	2.41	1323	20.0	349.0	2.23
155	161	1568	19.2	18.5	17.2	23.1	26.2	2.59	5.0	12.4	0.28	5.53	45.6	96	2.53	0.109	0.096	10.4	0.58	4471	10941	274	87	D	G	0.2589	406.0	2.52	1543	18.7	393.6	2.44	1395	19.6	377.1	2.34	1277	20.3	351.5	2.18
160	166	1487	19.6	18.9	17.3	23.3	26.4	2.63	5.1	12.5	0.29	5.72	45.1	95	2.59	0.111	0.098	10.2	0.58	4406	10941	267	85	D	G	0.2720	404.5	2.43	1466	19.1	392.6	2.36	1338	20.0	377.0	2.27	1234	20.6	353.4	2.13
165	171	1413	20.0	19.3	17.5	23.5	26.6	2.68	5.2	12.6	0.29	5.92	44.6	94	2.66	0.113	0.100	10.0	0.57	4344	10941	261	84	D	G	0.2851	402.9	2.35	1396	19.5	391.3	2.28	1284	20.3	376.6	2.20	1186	20.9	354.3	2.07
170	176	1345	20.4	19.7	17.7	23.6	26.8	2.72	5.3	12.7	0.29	6.11	44.1	93	2.73	0.115	0.102	9.8	0.56	4286	10941	255	82	D	G	0.2982	401.1	2.28	1330	19.9	389.9	2.21	1229	20.7	375.7	2.13	1146	21.2	355.2	2.01
175	181	1284	20.8	20.1	17.8	23.8	26.9	2.76	5.3	12.8	0.29	6.30	43.7	92	2.79	0.117	0.104	9.6	0.56	4231	10941	249	81	D	G	0.3109	399.2	2.20	1268	20.2	388.3	2.14	1179	21.0	374.8	2.07	1106	21.5	355.7	1.96
180	186	1227	21.2	20.4	18.0	23.9	27.1	2.80	5.4	12.8	0.29	6.49	43.3	91	2.85	0.119	0.105	9.4	0.55	4179	10941	244	80	D	G	0.3237	397.2	2.13	1214	20.6	386.6	2.08	1135	21.3	373.7	2.01	1069	21.8	355.9	1.91
SI = 17 m Initial Density = 80000 stems/ha																																								
5	11	76316	0.6	0.6	1.8	2.9	3.1	0.66	0.9	0.7	0.56	0.35	2.3	360	0.36	0.125	0.115	2.9	0.04	8784	15448	367	263	D	G	0.0000	2.1	0.19	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	68190	1.5	1.4	2.8	4.7	5.2	0.70	1.1	1.4	0.44	0.39	11.5	211	0.38	0.082	0.074	9.5	0.16	9599	15448	557	264	D	G	0.0002	16.2	0.99	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	58029	2.2	2.1	3.8	6.4	7.1	0.75	1.3	2.1	0.36	0.45	22.5	179	0.42	0.065	0.058	15.1	0.31	9973	15448	693	259	D	G	0.0007	43.1	2.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	47998	2.9	2.8	4.7	8.0	9.0	0.81	1.4	2.8	0.32	0.52	32.7	164	0.46	0.057	0.051	19.0	0.44	10012	15448	769	250	D	G	0.0016	78.2	2.97	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	31	39236	3.6	3.4	5.6	9.4	10.7	0.87	1.5	3.4	0.30	0.61	40.9	154	0.50	0.054	0.047	21.4	0.55	9843	15448	800	238	D	G	0.0030	116.3	3.72	45	7.6	0.5	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	36	32050	4.3	4.1	6.4	10.7	12.2	0.94	1.6	4.0	0.28	0.70	47.2	146	0.56	0.052	0.046	22.7	0.64	9565	15448	800	225	D	G	0.0048	153.8	4.24	591	7.7	7.4	0.20	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	41	26328	5.0	4.7	7.1	11.9	13.6	1.00	1.8	4.5	0.27	0.81	51.7	140	0.62	0.052	0.045	23.1	0.69	9240	15448	783	214	D	G	0.0072	188.5	4.57	1915	7.9	28.7	0.70	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	46	21818	5.7	5.3	7.8	12.9	14.9	1.07	1.9	5.1	0.27	0.93	54.8	136	0.68	0.052	0.046	23.0	0.73	8902	15448	756	202	D	G	0.0101	219.8	4.75	3590	8.2	64.2	1.39	2	12.5	0.1	0.00	0	0.0	0.0	0.00
45	51	18264	6.3	6.0	8.4	13.9	16.0	1.14	2.0	5.5	0.26	1.05	56.9	132	0.74	0.053	0.046	22.7	0.76	8569	15448	725	192	D	G	0.0135	247.4	4.82	5030	8.5	106.7	2.08	25	12.5	1.6	0.03	0	0.0	0.0	0.00
50	56	15448	6.9	6.6	9.0	14.7	17.0	1.20	2.2	6.0	0.26	1.18	58.1	128	0.80	0.055	0.047	22.1	0.77	8248	15448	692	183	D	G	0.0176	271.5	4.82	5975	8.8	149.2	2.65	105	12.7	7.4	0.13	5	14.4	0.4	0.01
55	61	13198	7.5	7.1	9.6	15.5	17.9	1.27	2.3	6.4	0.26	1.32	58.8	126	0.87	0.056	0.049	21.4	0.78	7945	15448	659	174	D	G	0.0222	292.4	4.77	6442	9.1	188.1	3.07	277	12.8	20.7	0.34	29	14.4	2.5	0.04
60	66	11382	8.1	7.7	10.1	16.2	18.7	1.33	2.4	6.8	0.26	1.46	59.0	123	0.94	0.058	0.050	20.7	0.78	7660	15448	627	166	D	G	0.0273	310.3	4.68	6547	9.5	221.8	3.35	541	13.0	42.5	0.64	89	14.6	7.9	0.12
65	71	9904	8.7	8.3	10.5	16.8	19.5	1.40	2.5	7.2	0.26	1.61	58.9	121	1.00	0.060	0.052	20.0	0.78	7393	15448	597	159	D	G	0.0329	325.6	4.57	6414	9.8	250.4	3.51	859	13.2	71.4	1.00	196	14.7	18.5	0.26
70	76	8688	9.3	8.8	11.0	17.4	20.2	1.46	2.7	7.6	0.26	1.76	58.6	119	1.07	0.062	0.053	19.3	0.77	7143	15448	569	153	D	G	0.0390	338.6	4.44	6143	10.2	274.4	3.60	1188	13.4	104.3	1.37	351	14.9	34.8	0.46
75	81	7678	9.8	9.4	11.4	17.9	20.8	1.52	2.8	7.9	0.26	1.91	58.1	117	1.14	0.064	0.055	18.6	0.76	6910	15448	542	147	D	G	0.0455	349.7	4.30	5801	10.6	294.2	3.62	1489	13.6	138.2	1.70	537	15.0	56.0	0.69
80	86	6832	10.4	9.9	11.7	18.4	21.3	1.58	2.9	8.3	0.26	2.07	57.5	116	1.21	0.066	0.057	17.9	0.75	6692	15448	518	141	D	G	0.0525	359.0	4.16	5429	11.0	310.6	3.60	1740	13.8	170.8	1.98	735	15.2	80.6	0.93
85	91	6118	10.9	10.4	12.1	18.8	21.9	1.64	3.0	8.6	0.26	2.22	56.8	114	1.28	0.068	0.058	17.2	0.74	6489	15448	495	136	D	G	0.0599	366.7	4.02	5059	11.4	324.2	3.55	1933	14.1	200.7	2.20	929	15.4	106.9	1.17
90	96	5511	11.4	10.9	12.4	19.2	22.3	1.70	3.2	8.9	0.26	2.38	56.1	113	1.35	0.070	0.060	16.6	0.73	6298	15448	474	131	D	G	0.0677	373.1	3.87	4699	11.8	335.3	3.48	2068	14.3	227.3	2.36	1101	15.6	133.3	1.38
95	101	4990	11.9	11.4	12.7	19.6	22.8	1.75	3.3	9.1	0.26	2.54	55.3	111	1.42	0.072	0.062	16.1	0.72	6120	15448	454	127	D	G	0.0758	378.3	3.73	4363	12.2	344.5	3.40	2156	14.6	250.3	2.47	1249	15.8	158.7	1.57
100	106	4541	12.4	11.8	13.0	20.0	23.2	1.81	3.4	9.4	0.26	2.71	54.5	110	1.48	0.074	0.064	15.5	0.71	5954	15448	436	123	D	G	0.0842	382.5	3.60	4050	12.6	351.9	3.31	2199	14.9	270.0	2.54	1365	16.1	182.4	1.72
105	111	4151	12.8	12.3	13.3	20.3	23.6	1.86	3.5	9.6	0.27	2.87	53.8	109	1.55	0.077	0.066	15.0	0.70	5797	15448	419	119	D	G	0.0929	385.8	3.47	3761	13.0	357.9	3.22	2207	15.1	286.5	2.57	1453	16.3	204.0	1.83
110	116	3810	13.3	12.7	13.6	20.6	23.9	1.91	3.6	9.9	0.27	3.03	53.0	108	1.62	0.079	0.068	14.5	0.69	5651	15448	403	116	D	G	0.1019	388.3	3.34	3500	13.4	362.8	3.12	2193	15.4	300.4	2.58	1516	16.5	223.3	1.92
115	121	3511	13.8	13.2	13.8	20.9	24.3	1.96	3.7	10.1	0.27	3.20	52.2	107	1.69	0.081	0.070	14.1	0.68	5514	15448	389	112	D	G	0.1111	390.1	3.22	3249	13.8	366.4	3.02	2160	15.7	311.8	2.57	1556	16.7	240.3	1.98
120	126	3248	14.2	13.6	14.0	21.1	24.6	2.01	3.8	10.3	0.27	3.36	51.4	106	1.75	0.083	0.071	13.6	0.66	5384	15448	375	109	D	G	0.1205	391.3	3.10	3034	14.2	369.4	2.93	2113	16.0	321.2	2.54	1577	17.0	255.2	2.02
125	131	3014	14.6	14.0	14.2	21.4	24.8	2.06	3.9	10.5	0.27	3.53	50.7	105	1.82	0.085	0.073	13.2	0.65	5263	15448	363	106	D	G	0.1301	392.0	2.99	2838	14.5	371.6	2.83	2055	16.2	328.8	2.50	1582	17.2	268.0	2.04
130	136	2806	15.1	14.4	14.5	21.6	25.1	2.11	4.0	10.6	0.27	3.69	49.9	104	1.89	0.087	0.075	12.9	0.64	5149	15448	351	104	D	G	0.1398	392.3	2.88	2661	14.9	373.1	2.74	1993	16.5	335.0	2.46	1574	17.5	279.0	2.05
135	141	2620	15.5	14.8	14.6	21.8	25.4	2.16	4.1	10.8	0.28	3.86	49.2	103	1.95	0.089	0.077	12.5	0.63	5041	15448	340	101	D	G	0.1497	392.2	2.78	2498	15.3	374.1	2.65	1927	16.8	339.9	2.41	1557	17.7	288.4	2.04
140	146	2454	15.9	15.2	14.8	22.1	25.6	2.20	4.2	11.0	0.28	4.02	48.5	102	2.02	0.092	0.079	12.2	0.62	4940	15448	330	99	D	G	0.1596	391.7	2.68	2353	15.6	374.6	2.56	1861	17.1	343.7	2.35	1534	18.0	296.4	2.03
145	151	2304	16.3	15.6	15.0	22.2	25.8	2.25	4.3	11.1	0.28	4.19	47.9	101	2.08	0.094	0.081	11.9	0.61	4845	15448	320	97	D	G	0.1697	390.9	2.58	2219	16.0	374.7	2.48	1794	17.4	346.6	2.29	1505	18.2	303.1	2.00
150	156	2168	16.7	16.0	15.2	22.4	26.0	2.29	4.4	11.2	0.28	4.35	47.2	100	2.15	0.096	0.083	11.6	0.60	4755	15448	311	94	D	G	0.1798	389.9	2.49	2096	16.3	374.5	2.40	1728	17.7	348.8	2.23	1472	18.5	308.6	1.97
155	161	2045	17.0	16.4	15.3	22.6	26.2	2.33	4.5	11.3	0.28	4.52	46.6	99	2.21	0.098	0.084	11.3	0.59	4670	15448	302	92	D	G	0.1900	388.6	2.41	1984	16.7	373.9	2.32	1663	18.0	350.3	2.17	1436	18.7	313.3	1.94
160	166	1934	17.4	16.7	15.5	22.8	26.4	2.38	4.6	11.5	0.29	4.68	46.0	98	2.27	0.100	0.086	11.0	0.59	4590	15448	294	91	D	G	0.2002	387.2	2.33	1879	17.0	373.1	2.24	1599	18.2	351.3	2.11	1384	19.1	316.1	1.90
165	171	1832	17.8	17.1	15.6	22.9	26.6	2.42	4.7	11.6	0.29	4.85	45.5	97	2.34	0.102	0.088	10.8	0.58	4514	15448	287	89	D	G	0.2105	385.6	2.25	1784	17.4	372.1	2.17	1532	18.6	351.4	2.05	1349	19.3	319.3	1.86
170	176	1739	18.1	17.4	15.8	23.1	26.8	2.46	4.8	11.6	0.29	5.01	44.9	96	2.40	0.104	0.090	10.6	0.57	4443	15448	280	87	D	G	0.2208	383.9	2.18	1695	17.7	370.9	2.10	1474	18.8	351.5	1.99	1310	19.6	321.8	1.83
175	181	1654	18.5	17.8	15.9	23.2	26.9	2.50	4.9	11.7	0.29	5.17	44.4	95	2.46	0.106	0.091	10.3	0.56	4376	15448	273	86	D	G	0.2310	382.1	2.11	1618	18.0	369.5	2.04	1422	19.1	351.4	1.94	1276	19.8	323.7	1.79
180	186	1576	18.8	18.1	16.0	23.4	27.1	2.54	4.9	11.8	0.29	5.33	43.9	94	2.52	0.108	0.093	10.1	0.55	4312	15448	267	84	D	G	0.2412	380.2	2.04	1545	18.4	368.0	1.98	1371	19.4	351.0	1.88	1239	20.1	325.2	1.75

Table A91. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
		Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		SI = 18 m Initial Density = 800 stems/ha																																						
5	11	797	3.0	2.8	2.7	3.2	3.3	0.81	2.3	0.4	0.84	0.53	0.6	110	3.54	1.121	1.078	0.3	0.01	159	639	13	4	V	G	0.0010	0.8	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	789	5.7	5.3	4.4	5.2	5.5	1.07	3.4	1.2	0.73	0.93	2.0	96	3.56	0.683	0.652	0.8	0.02	311	639	27	7	A	G	0.0062	4.9	0.31	62	9.1	0.9	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	777	8.0	7.5	6.2	7.2	7.6	1.31	4.3	2.3	0.64	1.43	3.9	94	3.59	0.497	0.473	1.4	0.04	499	639	42	11	A	G	0.0175	13.6	0.65	367	9.8	8.7	0.42	37	13.3	1.8	0.09	8	14.8	0.4	0.02
20	26	762	10.1	9.5	7.8	9.1	9.6	1.54	4.9	3.5	0.57	1.98	6.1	94	3.62	0.399	0.378	1.9	0.06	704	639	55	15	A	G	0.0350	26.7	1.03	553	11.0	22.0	0.85	166	14.0	11.0	0.42	71	15.5	5.1	0.20
25	31	745	11.9	11.3	9.4	10.8	11.4	1.75	5.3	4.7	0.52	2.55	8.3	94	3.66	0.339	0.322	2.4	0.09	913	639	68	19	A	G	0.0581	43.3	1.40	632	12.3	38.7	1.25	311	14.9	27.3	0.88	186	16.2	17.5	0.57
30	36	725	13.6	13.0	10.8	12.4	13.0	1.94	5.6	5.8	0.48	3.14	10.6	93	3.71	0.301	0.285	2.9	0.12	1117	639	79	23	A	G	0.0859	62.3	1.73	660	13.7	57.7	1.61	420	15.8	47.3	1.32	299	17.0	35.7	0.99
35	41	704	15.2	14.5	12.2	13.8	14.5	2.12	5.9	6.9	0.46	3.73	12.7	93	3.77	0.274	0.260	3.3	0.14	1311	639	89	26	A	G	0.1175	82.7	2.02	665	15.0	78.1	1.91	490	16.8	68.8	1.68	387	17.8	56.9	1.39
40	46	683	16.6	15.9	13.4	15.0	15.8	2.28	6.1	7.8	0.43	4.31	14.7	92	3.83	0.255	0.242	3.6	0.17	1491	639	97	29	A	G	0.1520	103.8	2.26	658	16.2	99.0	2.15	531	17.7	90.7	1.97	449	18.6	79.2	1.72
45	51	661	17.9	17.1	14.5	16.2	17.0	2.42	6.3	8.7	0.41	4.88	16.6	91	3.89	0.241	0.229	3.9	0.19	1657	639	104	32	B	G	0.1885	124.6	2.45	645	17.4	119.7	2.35	552	18.6	112.2	2.20	487	19.4	101.4	1.99
50	56	639	19.1	18.3	15.5	17.2	18.0	2.56	6.5	9.5	0.40	5.44	18.2	91	3.96	0.230	0.220	4.2	0.21	1807	639	110	35	B	G	0.2264	144.7	2.59	628	18.5	139.8	2.50	560	19.6	132.8	2.37	508	20.2	122.7	2.19
55	61	617	20.2	19.4	16.5	18.1	18.9	2.69	6.6	10.2	0.39	5.98	19.7	90	4.03	0.222	0.213	4.4	0.23	1943	639	115	37	B	G	0.2655	163.8	2.69	610	19.6	158.7	2.60	559	20.4	152.2	2.50	518	21.0	142.9	2.34
60	66	596	21.2	20.5	17.3	19.0	19.8	2.81	6.7	10.8	0.38	6.51	21.1	89	4.10	0.216	0.207	4.6	0.25	2065	639	119	39	B	G	0.3050	181.8	2.76	591	20.6	176.6	2.68	552	21.3	170.3	2.58	520	21.8	161.7	2.45
65	71	576	22.2	21.4	18.1	19.7	20.6	2.92	6.9	11.4	0.37	7.02	22.3	88	4.17	0.211	0.203	4.7	0.27	2174	639	122	40	B	G	0.3448	198.6	2.80	572	21.5	193.3	2.72	543	22.1	187.1	2.64	517	22.6	179.2	2.53
70	76	557	23.1	22.3	18.8	20.4	21.3	3.02	7.0	11.9	0.37	7.52	23.4	88	4.24	0.208	0.199	4.9	0.29	2271	639	125	42	B	G	0.3844	214.1	2.82	555	22.4	208.8	2.75	531	23.0	202.7	2.67	511	23.3	195.4	2.57
75	81	539	24.0	23.2	19.5	21.1	21.9	3.12	7.1	12.3	0.36	8.00	24.3	87	4.31	0.205	0.197	5.0	0.31	2359	639	127	43	B	G	0.4237	228.4	2.82	537	23.3	223.0	2.75	519	23.7	216.9	2.68	502	24.1	210.1	2.60
80	86	522	24.8	24.0	20.1	21.6	22.5	3.21	7.2	12.7	0.36	8.47	25.2	86	4.38	0.202	0.195	5.1	0.32	2438	639	129	44	B	G	0.4626	241.5	2.81	521	24.1	236.0	2.75	506	24.5	229.9	2.68	493	24.8	223.6	2.60
85	91	506	25.6	24.8	20.7	22.2	23.0	3.30	7.3	13.1	0.35	8.93	26.0	85	4.45	0.200	0.193	5.1	0.33	2508	639	130	45	B	G	0.5008	253.4	2.79	505	24.8	247.9	2.73	493	25.2	241.8	2.66	482	25.5	235.8	2.59
90	96	491	26.3	25.5	21.2	22.7	23.5	3.38	7.4	13.4	0.35	9.37	26.7	84	4.51	0.199	0.192	5.2	0.35	2572	639	132	46	B	G	0.5381	264.2	2.75	490	25.6	258.7	2.70	481	25.8	252.6	2.63	472	26.1	247.0	2.57
95	101	477	27.0	26.2	21.7	23.1	23.9	3.46	7.5	13.7	0.35	9.80	27.3	84	4.58	0.198	0.191	5.3	0.36	2631	639	132	47	B	G	0.5746	274.1	2.72	477	26.2	268.5	2.66	469	26.5	262.4	2.60	461	26.7	257.1	2.55
100	106	464	27.6	26.9	22.2	23.6	24.4	3.53	7.6	14.0	0.35	10.21	27.8	83	4.64	0.197	0.191	5.3	0.37	2684	639	133	47	B	G	0.6101	283.1	2.67	464	26.9	277.5	2.62	457	27.1	271.3	2.56	451	27.3	266.3	2.51
105	111	452	28.3	27.5	22.6	23.9	24.7	3.60	7.7	14.2	0.35	10.61	28.4	82	4.70	0.196	0.190	5.3	0.38	2733	639	134	48	B	G	0.6447	291.4	2.63	452	27.5	285.7	2.58	446	27.7	279.5	2.52	441	27.9	274.8	2.48
110	116	440	28.9	28.1	23.0	24.3	25.1	3.67	7.7	14.4	0.35	10.99	28.8	81	4.77	0.196	0.190	5.4	0.39	2778	639	134	48	B	G	0.6780	298.3	2.57	440	28.1	292.6	2.52	435	28.3	286.4	2.47	431	28.4	281.9	2.43
115	121	430	29.4	28.6	23.3	24.7	25.4	3.73	7.8	14.6	0.34	11.37	29.2	81	4.82	0.196	0.190	5.4	0.40	2820	639	135	49	B	G	0.7105	305.5	2.53	430	28.6	299.8	2.48	426	28.8	293.5	2.43	422	29.0	289.2	2.39
120	126	420	30.0	29.2	23.7	25.0	25.7	3.79	7.9	14.8	0.34	11.73	29.6	80	4.88	0.195	0.190	5.4	0.41	2859	639	135	49	B	G	0.7417	311.5	2.47	420	29.2	305.8	2.43	417	29.3	299.5	2.38	413	29.5	295.3	2.34
125	131	411	30.5	29.7	24.0	25.3	26.0	3.85	7.9	14.9	0.34	12.08	30.0	79	4.93	0.195	0.190	5.4	0.42	2896	639	135	50	B	G	0.7718	317.2	2.42	411	29.7	311.5	2.38	408	29.8	305.2	2.33	405	30.0	301.2	2.30
130	136	402	31.0	30.2	24.3	25.5	26.3	3.90	8.0	15.0	0.34	12.43	30.3	79	4.99	0.195	0.190	5.4	0.42	2931	639	135	50	B	G	0.8010	322.0	2.37	402	30.2	316.2	2.33	400	30.3	309.9	2.28	397	30.4	306.0	2.25
135	141	394	31.5	30.7	24.6	25.8	26.5	3.95	8.0	15.1	0.34	12.76	30.6	78	5.04	0.195	0.190	5.5	0.43	2965	639	135	50	C	G	0.8289	326.6	2.32	394	30.7	320.8	2.28	392	30.8	314.5	2.23	390	30.9	310.8	2.21
140	146	387	31.9	31.1	24.8	26.1	26.8	4.00	8.1	15.2	0.34	13.08	31.0	77	5.08	0.195	0.190	5.5	0.44	2996	639	135	51	C	G	0.8561	331.3	2.27	387	31.1	325.4	2.23	385	31.2	319.0	2.19	383	31.3	315.4	2.16
145	151	380	32.4	31.6	25.1	26.3	27.0	4.05	8.1	15.3	0.34	13.39	31.2	77	5.13	0.195	0.190	5.5	0.45	3027	639	135	51	C	G	0.8818	335.1	2.22	380	31.6	329.3	2.18	379	31.6	322.9	2.14	377	31.7	319.4	2.12
150	156	374	32.8	32.0	25.3	26.5	27.2	4.10	8.2	15.4	0.34	13.69	31.5	76	5.17	0.195	0.190	5.5	0.45	3056	639	136	51	C	G	0.9070	339.2	2.18	374	32.0	333.3	2.14	373	32.0	326.9	2.10	371	32.1	323.4	2.07
155	161	368	33.2	32.4	25.6	26.7	27.4	4.14	8.2	15.4	0.34	13.98	31.8	75	5.21	0.195	0.190	5.5	0.46	3084	639	136	51	C	G	0.9310	342.6	2.13	368	32.4	336.6	2.09	367	32.4	330.2	2.05	365	32.5	326.8	2.03
160	166	362	33.6	32.8	25.8	26.9	27.6	4.19	8.3	15.5	0.35	14.27	32.0	75	5.26	0.195	0.191	5.5	0.47	3112	639	136	52	C	G	0.9539	345.3	2.08	362	32.8	339.3	2.04	361	32.8	332.8	2.01	360	32.9	329.6	1.99
165	171	357	33.9	33.1	26.0	27.1	27.8	4.23	8.3	15.5	0.35	14.54	32.3	74	5.29	0.195	0.191	5.5	0.47	3139	639	136	52	C	G	0.9759	348.4	2.04	357	33.1	342.4	2.00	356	33.2	335.9	1.96	355	33.3	332.8	1.95
170	176	352	34.3	33.5	26.2	27.3	27.9	4.27	8.3	15.5	0.35	14.81	32.5	74	5.33	0.196	0.191	5.6	0.48	3165	639	136	52	C	G	0.9972	351.0	1.99	352	33.5	345.0	1.96	351	33.6	338.4	1.92	350	33.6	335.3	1.91
175	181	348	34.6	33.8	26.4	27.4	28.1	4.30	8.4	15.6	0.35	15.07	32.8	73	5.36	0.195	0.191	5.6	0.49	3191	639	136	52	C	G	1.0175	354.1	1.96	348	33.8	348.0	1.92	347	33.9	341.4	1.89	346	34.0	338.4	1.87
180	186	343	35.0	34.2	26.5	27.6	28.2	4.34	8.4	15.6	0.35	15.33	33.0	72	5.40	0.196	0.191	5.6	0.49	3216	639	136	53	C	G	1.0367	355.6	1.91	343	34.2	349.6	1.88	343	34.2	343.0	1.84	342	34.2	340.1	1.83
		SI = 18 m Initial Density = 1000 stems/ha																																						
5	11	994	2.8	2.6	2.6	3.2	3.3	0.80	2.2	0.4	0.83	0.51	0.6	114	3.17	1.005	0.965	0.4	0.01	191	746	15	5	A	G	0.0009	0.9	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	982	5.4	5.0	4.4	5.2	5.5	1.04	3.3	1.2	0.72	0.87	2.2	99	3.19	0.613	0.585	1.0	0.02	364	746	32	9	A	G	0.0055	5.4	0.34	51	9.0	0.7	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	962	7.6	7.1	6.1	7.2	7.6	1.27	4.1	2.3	0.62	1.33	4.4	97	3.22	0.448	0.425	1.6	0.04	574	746	48	13	A	G	0.0155	14.9	0.71	401	9.6	8.8	0.42	27	13.2	1.3	0.06	5	14.6	0.2	0.01
20	26	938	9.6	9.0	7.7	9.1	9.6	1.49	4.6	3.5	0.56	1.84	6.8	97	3.27	0.360	0.341	2.2	0.07	800	746	64	17	A	G	0.0311	29.2	1.13	643	10.7	23.3	0.90	158	13.8	10.0	0.39	59	15.3	4.1	0.16
25	31	910	11.4	10.8	9.3	10.8	11.4	1.69	5.0	4.7	0.51	2.37	9.2	96	3.31	0.308	0.291	2.7	0.10	1028	746	78	22	A	G	0.0520	47.3	1.53	749	11.9	41.6	1.34	327	14.6	27.2	0.88	179	15.9	16.1	0.52
30	36	879	13.0	12.4	10.7	12.3	13.0	1.87	5.3	5.9	0.47	2.92	11.7	95	3.37	0.274	0.259	3.2	0.13	1249	746	90	26	A	G	0.0772	67.9	1.89	787	13.2	62.4	1.74	463	15.4	49.0	1.36	312	16.6	35.2	0.98
35	41	846	14.5	13.8	12.1	13.7	14.5	2.04	5.6	6.9	0.44	3.47	14.0	95	3.44	0.251	0.238	3.7	0.16	1455	746	100	29	A	G	0.1063	89.9	2.20	790	14.4	84.3	2.06	553	16.3	72.5	1.77	420	17.4	58.0	1.42
40	46	812	15.9	15.2	13.3	15.0	15.8	2.20	5.8	7.9	0.42	4.03	16.1	94	3.51	0.234	0.222	4.0	0.18	1644	746	109	33	B	G	0.1381	112.1	2.44	777	15.6	106.6	2.32	605	17.2	96.2	2.09	497	18.1	82.1	1.79
45	51	779	17.2	16.5	14.4	16.1	17.0	2.35	6.0	8.7	0.40	4.57	18.0	93	3.58	0.222	0.211	4.3	0.21	1814	746	116	36	B	G	0.1721	134.1	2.63	757	16.8	128.5	2.52	631	18.1	119.3	2.34	545	18.9	106.1	2.08
50	56	746	18.4	17.6	15.4	17.1	18.0	2.48	6.2	9.5	0.39	5.11	19.7	92	3.66	0.214	0.203	4.6	0.23	1966	746	122	38	B	G	0.2079	155.1	2.77	731	17.9	149.5	2.67	639	19.0	141.1	2.52	572	19.7	129.0	2.31
55	61	714	19.5	18.7	16.3	18.1	18.9	2.61	6.3	10.2	0.38	5.63	21.3	92	3.74	0.207	0.198	4.8	0.25	2101	746	127	40	B	G	0.2450	174.9	2.87	704	18.9	169.2	2.78	636	19.9	161.5	2.65	583	20.5	150.3	2.47
60	66	684	20.5	19.8	17.2	18.9	19.8	2.73	6.5	10.8	0.37	6.15	22.6	91	3.82	0.202	0.193	5.0	0.27	2220	746	130	42	B	G	0.2827	193.4	2.93	677	19.9	187.7	2.85	626	20.7	180.4	2.74	584	21.3	170.1	2.58
65	71	656	21.5	20.8	18.0	19.7	20.6	2.84	6.6	11.4	0.36	6.65	23.8	90	3.90	0.199	0.190	5.1	0.29	2325	746	133	44	B	G	0.3210	210.6	2.97	651	20.9	204.8	2.89	612	21.5	197.8	2.79	579	22.0	188.4	2.66
70	76	629	22.4	21.7	18.7	20.4	21.3	2.94	6.7	11.9	0.36	7.15	24.8	89	3.99	0.196	0.188	5.2	0.31	2417	746	135	45	B	G	0.3595	226.1	2.98	626	21.8	220.3	2.90	596	22.3	213.5	2.81	569	22.8	204.9	2.70
75	81	604	23.3	22.5	19.3	21.0	21.9	3.04	6.9	12.3	0.35	7.63	25.8	88	4.07	0.194	0.186	5.3	0.32	2498	746	137	46	B	G	0.3977	240.2	2.97	602	22.6	234.4	2.90	578	23.1	227.7	2.81	557	23.5	219.8	2.72
80	86	581	24.1	23.4	20.0	21.6	22.5	3.14	7.0	12.8	0.35	8.09	26.6	87	4.15	0.192	0.185	5.4	0.34	2570	746	138	47	B	G	0.4358	253.2	2.95	579	23.4	247.3	2.88	561	23.9	240.8	2.80	544	24.2	233.4	2.72
85	91	560	24.9	24.2	20.5	22.1	23.0	3.23	7.1	13.1	0.35	8.55	27.3	87	4.23	0.191	0.184	5.5	0.35	2634	746	139	48	B	G	0.4734	265.1	2.91	559	24.2	259.2	2.85	544	24.6	252.7	2.78	530	24.9	245.8	2.70
90	96	540	25.7	24.9	21.0	22.6	23.5	3.31	7.2	13.4	0.34	8.99	27.9	86	4.30	0.190	0.183	5.5	0.36	2691	746	140	49	B	G	0.5102	275.5	2.87	539	24.9	269.6	2.81	527	25.3	263.1	2.74	516	25.5	256.8	2.68
95	101	521	26.4	25.6	21.5	23.1	23.9	3.39	7.3	13.7	0.34	9.42	28.5	85	4.38	0.190	0.183	5.5	0.37	2743	746	140	49	B	G	0.5464	284.7	2.82	520	25.6	278.8	2.76	511	25.9	272.3	2.70	501	26.2	266.3	2.64
100	106	504	27.0	26.3	22.0	23.5	24.4	3.46	7.4	14.0	0.34	9.83	29.0	84	4.45	0.190	0.183	5.6	0.38	2789	746	140	50	B	G	0.5817	293.2	2.77	504	26.3	287.3	2.71	496	26.5	280.9	2.65	488	26.8	275.2	2.60
105	111	489	27.7	26.9	22.4	23.9	24.7	3.54	7.5	14.2	0.34	10.24	29.4	83	4.52	0.189	0.183	5.6	0.39	2832	746	141	50	C	G	0.6162	301.3	2.72	489	26.9	295.4	2.66	482	27.2	288.9	2.60	475	27.4	283.6	2.56
110	116	474	28.3	27.5	22.8	24.3	25.1	3.60	7.6	14.4	0.34	10.63	29.8	82	4.59	0.189	0.183	5.6	0.40	2871	746	141	50	C	G	0.6498	308.0	2.66	474	27.5	302.0	2.60	468	27.7	295.5	2.55	463	27.9	290.5	2.51
115	121	461	28.9	28.1	23.2	24.6	25.4	3.67	7.6	14.6	0.34	11.01	30.2	82	4.66	0.189	0.183	5.6	0.41	2907	746	141	51	C	G	0.6822	314.5	2.60	461	28.1	308.5	2.55	456	28.3	302.0	2.50	451	28.5	297.2	2.46
120	126	449	29.4	28.7	23.5	24.9	25.7	3.73	7.7	14.8	0.34	11.38	30.6	81	4.72	0.189	0.183	5.6	0.42	2941	746	141	51	C	G	0.7136	320.4	2.54	449	28.7	314.5	2.50	445	28.8	308.0	2.45	441	29.0	303.4	2.41
125	131	438	30.0	29.2	23.8	25.2	26.0	3.79	7.8	14.9	0.34	11.73	30.9	80	4.78	0.190	0.184	5.6	0.43	2973	746	141	51	C	G	0.7441	325.9	2.49	438	29.2	319.9	2.44	435	29.3	313.4	2.39	431	29.5	309.0	2.36
130	136	427	30.5	29.7	24.1	25.5	26.3	3.85	7.8	15.0	0.34	12.08	31.2	79	4.84	0.190	0.184	5.6	0.43	3003	746	140	52	C	G	0.7735	330.3	2.43	427	29.7	324.3	2.39	424	29.8	317.7	2.34	421	29.9	313.6	2.31
135	141	417	31.0	30.2	24.4	25.7	26.5	3.90	7.9	15.1	0.34	12.42	31.4	79	4.90	0.190	0.185	5.6	0.44	3031	746	140	52	C	G	0.8017	334.3	2.37	417	30.2	328.3	2.33	415	30.3	321.8	2.28	412	30.4	317.8	2.25
140	146	408	31.4	30.6	24.7	26.0	26.8	3.95	8.0	15.2	0.34	12.74	31.7	78	4.95	0.190	0.185	5.6	0.45	3059	746	140	52	C	G	0.8292	338.3	2.32	408	30.6	332.3	2.28	406	30.7	325.7	2.23	403	30.9	321.8	2.20
145	151	400	31.9	31.1	24.9	26.2	27.0	4.00	8.0	15.3	0.34	13.06	31.9	77	5.00	0.191	0.185	5.7	0.45	3085	746	140	52	C	G	0.8555	342.2	2.27	400	31.1	336.1	2.23	398	31.2	329.5	2.18	396	31.3	325.8	2.16
150	156	392	32.3	31.5	25.2	26.4	27.2	4.05	8.1	15.4	0.34	13.37	32.2	77	5.05	0.191	0.186	5.7	0.46	3111	746	140	52	C	G	0.8806	345.2	2.21	392	31.5	339.2	2.18	391	31.6	332.6	2.13	388	31.7	328.9	2.11
155	161	385	32.7	31.9	25.4	26.6	27.4	4.09	8.1	15.4	0.34	13.66	32.4	76	5.10	0.191	0.186	5.7	0.47	3135	746	140	53	C	G	0.9052	348.5	2.17	385	31.9	342.4	2.13	384	32.0	335.8	2.09	382	32.1	332.3	2.06
160	166	378	33.1	32.3	25.6	26.8	27.6	4.14	8.2	15.5	0.34	13.95	32.6	75	5.14	0.192	0.186	5.7	0.47	3160	746	139	53	C	G	0.9283	350.9	2.11	378	32.3	344.9	2.08	377	32.4	338.2	2.04	375	32.5	334.8	2.02
165	171	372	33.5	32.7	25.8	27.0	27.8	4.18	8.2	15.5	0.34	14.24	32.8	75	5.18	0.192	0.187	5.7	0.48	3183	746	139	53	C	G	0.9508	353.7	2.07	372	32.7	347.7	2.03	371	32.8	341.0	1.99	370	32.8	337.7	1.98
170	176	366	33.9	33.1	26.0	27.2	27.9	4.22	8.3	15.5	0.34	14.51	33.0	74	5.23	0.192	0.187	5.7	0.48	3206	746	139	53	C	G	0.9724	355.9	2.02	366	33.1	349.8	1.99	365	33.2	343.1	1.95	364	33.2	339.9	1.93
175	181	361	34.3	33.5	26.2	27.4	28.1	4.26	8.3	15.6	0.34	14.78	33.3	74	5.26	0.192	0.187	5.7	0.49	3229	746	139	53	C	G	0.9931	358.5	1.98	361	33.5	352.4	1.95	360	33.5	345.7	1.91	359	33.6	342.6	1.89
180	186	356	34.6	33.8	26.4	27.5	28.2	4.30	8.3	15.6	0.34	15.04	33.5	73	5.30	0.193	0.188	5.7	0.49	3252	746	139	54	C	G	1.0129	360.6	1.94	356	33.8	354.5	1.91	355	33.9	347.7	1.87	354	33.9	344.7	1.85

Table A92. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 18 m Initial Density = 1600 stems/ha																																								
5	11	1586	2.5	2.3	2.6	3.1	3.3	0.77	2.0	0.5	0.81	0.47	0.8	125	2.51	0.798	0.764	0.5	0.01	283	1021	21	8	A	G	0.0006	1.0	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	1553	4.8	4.5	4.3	5.2	5.5	0.98	3.0	1.3	0.68	0.77	2.8	106	2.54	0.490	0.465	1.3	0.03	506	1021	44	12	A	G	0.0042	6.5	0.41	27	8.8	0.3	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	1504	6.8	6.4	5.9	7.2	7.6	1.19	3.7	2.4	0.59	1.15	5.5	103	2.58	0.360	0.340	2.1	0.06	770	1021	65	17	A	G	0.0120	18.0	0.86	447	9.2	8.4	0.40	11	12.9	0.5	0.02	0	0.0	0.0	0.00
20	26	1444	8.6	8.1	7.6	9.0	9.6	1.38	4.1	3.6	0.52	1.58	8.4	102	2.63	0.292	0.275	2.9	0.09	1047	1021	85	23	A	G	0.0243	35.1	1.35	853	10.0	25.5	0.98	121	13.4	7.1	0.27	31	15.0	2.0	0.08
25	31	1376	10.3	9.7	9.1	10.7	11.4	1.57	4.5	4.8	0.47	2.04	11.4	101	2.70	0.252	0.237	3.6	0.13	1319	1021	103	28	A	G	0.0410	56.4	1.82	1048	11.1	47.5	1.54	330	14.0	24.8	0.80	144	15.5	11.9	0.38
30	36	1304	11.8	11.2	10.5	12.3	13.0	1.74	4.8	5.9	0.44	2.52	14.3	100	2.77	0.226	0.213	4.2	0.16	1573	1021	117	33	B	G	0.0617	80.4	2.24	1115	12.2	72.0	2.00	534	14.7	50.1	1.39	310	16.0	31.4	0.87
35	41	1230	13.2	12.6	11.8	13.6	14.5	1.90	5.0	6.9	0.41	3.00	16.9	99	2.85	0.209	0.197	4.6	0.19	1802	1021	129	37	B	G	0.0857	105.4	2.57	1117	13.3	97.4	2.38	681	15.5	78.1	1.91	467	16.6	57.0	1.39
40	46	1157	14.6	13.9	13.0	14.9	15.8	2.05	5.2	7.9	0.39	3.50	19.2	98	2.94	0.198	0.186	5.0	0.22	2004	1021	138	40	B	G	0.1127	130.4	2.84	1088	14.4	122.7	2.67	769	16.3	106.2	2.31	586	17.3	85.1	1.85
45	51	1087	15.8	15.1	14.1	16.0	17.0	2.19	5.4	8.7	0.38	3.99	21.3	97	3.03	0.189	0.179	5.4	0.25	2180	1021	145	43	B	G	0.1421	154.5	3.03	1043	15.5	147.0	2.89	813	17.1	132.9	2.61	665	18.0	113.0	2.22
50	56	1021	17.0	16.3	15.1	17.0	18.0	2.33	5.6	9.5	0.37	4.49	23.1	96	3.13	0.184	0.174	5.6	0.28	2330	1021	150	46	B	G	0.1736	177.2	3.17	992	16.6	169.9	3.04	825	17.9	157.6	2.82	709	18.7	139.5	2.49
55	61	960	18.1	17.4	16.0	17.9	18.9	2.45	5.8	10.2	0.36	4.98	24.6	95	3.23	0.180	0.170	5.8	0.30	2457	1021	154	48	B	G	0.2067	198.4	3.26	941	17.6	191.2	3.14	819	18.7	180.3	2.96	728	19.5	163.9	2.69
60	66	903	19.1	18.4	16.8	18.8	19.8	2.57	5.9	10.8	0.35	5.47	25.9	94	3.33	0.177	0.168	5.9	0.32	2565	1021	156	49	B	G	0.2409	217.5	3.30	890	18.6	210.5	3.19	800	19.6	200.6	3.04	730	20.2	185.9	2.82
65	71	851	20.1	19.4	17.6	19.5	20.6	2.69	6.1	11.4	0.34	5.95	27.0	93	3.43	0.175	0.167	6.0	0.33	2656	1021	158	51	C	G	0.2760	234.9	3.31	842	19.5	227.9	3.21	775	20.4	218.8	3.08	720	20.9	205.6	2.90
70	76	804	21.1	20.3	18.3	20.2	21.3	2.79	6.2	11.9	0.34	6.43	28.0	92	3.53	0.174	0.166	6.1	0.35	2733	1021	159	52	C	G	0.3118	250.7	3.30	798	20.4	243.8	3.21	747	21.1	235.2	3.10	704	21.6	223.3	2.94
75	81	760	22.0	21.2	19.0	20.9	21.9	2.89	6.4	12.3	0.34	6.90	28.8	91	3.63	0.174	0.166	6.1	0.36	2798	1021	159	52	C	G	0.3478	264.3	3.27	756	21.3	257.5	3.18	717	21.9	249.4	3.08	683	22.4	238.6	2.95
80	86	721	22.8	22.1	19.6	21.4	22.5	2.99	6.5	12.7	0.33	7.35	29.4	90	3.72	0.174	0.166	6.2	0.37	2853	1021	159	53	C	G	0.3839	276.8	3.22	718	22.1	270.0	3.14	688	22.7	262.2	3.05	661	23.1	252.4	2.94
85	91	686	23.6	22.9	20.1	22.0	23.0	3.08	6.6	13.1	0.33	7.80	30.0	89	3.82	0.174	0.166	6.2	0.39	2901	1021	159	54	C	G	0.4198	288.0	3.17	684	22.9	281.3	3.09	660	23.4	273.7	3.01	638	23.7	264.7	2.91
90	96	654	24.4	23.6	20.6	22.5	23.5	3.17	6.8	13.4	0.33	8.24	30.5	88	3.91	0.174	0.166	6.2	0.40	2942	1021	158	54	C	G	0.4555	297.9	3.10	652	23.7	291.2	3.04	634	24.1	283.8	2.96	616	24.4	275.6	2.87
95	101	625	25.1	24.4	21.1	22.9	23.9	3.25	6.9	13.7	0.33	8.67	31.0	87	4.00	0.174	0.167	6.2	0.40	2978	1021	157	54	C	G	0.4907	306.7	3.04	624	24.4	300.0	2.97	609	24.7	292.7	2.90	594	25.0	285.1	2.82
100	106	598	25.8	25.1	21.6	23.4	24.4	3.33	7.0	14.0	0.33	9.09	31.3	86	4.09	0.175	0.168	6.2	0.41	3009	1021	156	54	C	G	0.5253	314.1	2.96	597	25.1	307.5	2.90	585	25.4	300.3	2.83	573	25.7	293.2	2.77
105	111	574	26.5	25.7	22.0	23.7	24.7	3.40	7.1	14.2	0.33	9.49	31.6	85	4.17	0.176	0.169	6.1	0.42	3037	1021	155	54	C	G	0.5592	321.0	2.89	573	25.8	314.4	2.83	563	26.0	307.2	2.77	553	26.3	300.6	2.71
110	116	552	27.1	26.4	22.4	24.1	25.1	3.47	7.2	14.4	0.33	9.89	31.9	85	4.26	0.177	0.170	6.1	0.43	3063	1021	154	55	C	G	0.5922	326.9	2.82	552	26.4	320.4	2.76	543	26.6	313.3	2.70	535	26.8	307.2	2.65
115	121	533	27.7	27.0	22.8	24.4	25.4	3.54	7.3	14.6	0.33	10.27	32.2	84	4.33	0.177	0.170	6.1	0.43	3086	1021	154	55	C	G	0.6246	332.9	2.75	533	27.0	326.4	2.70	526	27.2	319.4	2.64	519	27.4	313.6	2.59
120	126	514	28.3	27.6	23.1	24.8	25.7	3.61	7.4	14.8	0.33	10.65	32.4	83	4.41	0.178	0.171	6.1	0.44	3108	1021	153	55	C	G	0.6560	337.2	2.68	514	27.6	330.7	2.63	508	27.8	323.7	2.57	502	27.9	318.3	2.53
125	131	498	28.9	28.1	23.4	25.1	26.0	3.67	7.5	14.9	0.33	11.01	32.6	82	4.48	0.179	0.172	6.1	0.45	3129	1021	152	55	C	G	0.6865	341.9	2.61	498	28.1	335.5	2.56	493	28.3	328.5	2.51	488	28.4	323.3	2.47
130	136	483	29.4	28.6	23.7	25.3	26.3	3.73	7.5	15.0	0.33	11.36	32.8	81	4.55	0.180	0.173	6.1	0.45	3148	1021	151	55	C	G	0.7161	345.9	2.54	483	28.6	339.5	2.50	479	28.8	332.5	2.45	474	29.0	327.5	2.41
135	141	469	29.9	29.2	24.0	25.6	26.5	3.79	7.6	15.1	0.33	11.71	33.0	80	4.62	0.180	0.174	6.0	0.46	3167	1021	150	55	C	G	0.7448	349.3	2.48	469	29.2	342.9	2.43	465	29.3	335.9	2.38	461	29.5	331.2	2.35
140	146	456	30.4	29.6	24.3	25.8	26.8	3.84	7.7	15.2	0.33	12.04	33.1	80	4.68	0.181	0.175	6.0	0.46	3185	1021	149	55	C	G	0.7724	352.2	2.41	456	29.6	345.8	2.37	453	29.8	338.9	2.32	450	29.9	334.4	2.29
145	151	445	30.9	30.1	24.5	26.1	27.0	3.89	7.7	15.3	0.33	12.36	33.4	79	4.74	0.182	0.176	6.0	0.47	3203	1021	149	55	C	G	0.7991	355.6	2.36	445	30.1	349.3	2.31	442	30.2	342.3	2.27	439	30.4	338.0	2.24
150	156	434	31.3	30.6	24.8	26.3	27.2	3.94	7.8	15.4	0.33	12.68	33.5	78	4.80	0.183	0.176	6.0	0.47	3220	1021	148	55	C	G	0.8249	358.0	2.30	434	30.6	351.7	2.26	432	30.7	344.7	2.21	429	30.8	340.6	2.18
155	161	424	31.8	31.0	25.0	26.5	27.4	3.99	7.9	15.4	0.33	12.99	33.6	77	4.86	0.183	0.177	6.0	0.48	3237	1021	148	55	C	G	0.8498	360.3	2.24	424	31.0	354.0	2.20	422	31.1	347.0	2.16	420	31.2	343.1	2.13
160	166	415	32.2	31.4	25.2	26.7	27.6	4.04	7.9	15.5	0.34	13.29	33.8	77	4.91	0.184	0.178	6.0	0.48	3254	1021	147	55	C	G	0.8737	362.6	2.19	415	31.4	356.3	2.15	413	31.5	349.3	2.10	411	31.6	345.5	2.08
165	171	406	32.6	31.8	25.4	26.9	27.8	4.08	8.0	15.5	0.34	13.58	33.9	76	4.96	0.185	0.179	5.9	0.49	3271	1021	146	55	C	G	0.8968	364.1	2.13	406	31.8	357.8	2.09	405	31.9	350.8	2.05	403	32.0	347.1	2.03
170	176	398	33.0	32.2	25.6	27.1	27.9	4.12	8.0	15.5	0.34	13.86	34.0	75	5.01	0.185	0.179	5.9	0.49	3288	1021	146	55	C	G	0.9188	365.7	2.08	398	32.2	359.4	2.04	397	32.3	352.5	2.00	395	32.4	348.9	1.98
175	181	391	33.4	32.6	25.8	27.2	28.1	4.17	8.1	15.6	0.34	14.13	34.2	75	5.06	0.186	0.180	5.9	0.50	3305	1021	146	55	C	G	0.9404	367.7	2.03	391	32.6	361.3	2.00	390	32.6	354.4	1.96	388	32.7	350.9	1.94
180	186	384	33.7	33.0	26.0	27.4	28.2	4.21	8.1	15.6	0.34	14.40	34.3	74	5.10	0.186	0.181	5.9	0.50	3322	1021	145	55	C	G	0.9607	368.9	1.98	384	33.0	362.6	1.95	383	33.0	355.6	1.91	382	33.1	352.3	1.89
SI = 18 m Initial Density = 2000 stems/ha																																								
5	11	1978	2.4	2.2	2.6	3.1	3.3	0.76	2.0	0.5	0.79	0.46	0.9	130	2.25	0.716	0.684	0.6	0.01	342	1181	25	9	A	G	0.0006	1.1	0.10	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	1929	4.5	4.2	4.2	5.2	5.5	0.95	2.9	1.3	0.67	0.73	3.1	110	2.28	0.440	0.417	1.5	0.03	592	1181	51	14	A	G	0.0037	7.1	0.45	17	8.7	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	1857	6.4	6.1	5.9	7.1	7.6	1.15	3.5	2.5	0.58	1.08	6.1	106	2.32	0.325	0.306	2.4	0.06	886	1181	76	20	A	G	0.0106	19.6	0.94	449	9.0	7.9	0.38	6	12.8	0.3	0.01	0	0.0	0.0	0.00
20	26	1769	8.2	7.7	7.5	9.0	9.6	1.34	3.9	3.7	0.51	1.48	9.3	105	2.38	0.264	0.248	3.3	0.10	1190	1181	98	26	A	G	0.0215	38.1	1.47	954	9.7	26.2	1.01	98	13.3	5.6	0.22	20	14.9	1.3	0.05
25	31	1670	9.8	9.3	9.0	10.7	11.4	1.51	4.2	4.8	0.46	1.90	12.6	104	2.45	0.229	0.215	4.0	0.14	1483	1181	117	32	B	G	0.0365	61.0	1.97	1212	10.7	50.0	1.62	315	13.8	22.7	0.73	120	15.3	9.5	0.31
30	36	1567	11.3	10.7	10.3	12.2	13.0	1.68	4.5	5.9	0.43	2.34	15.6	102	2.53	0.207	0.194	4.7	0.18	1752	1181	133	37	B	G	0.0553	86.6	2.41	1304	11.8	76.3	2.12	551	14.5	49.1	1.37	293	15.8	28.3	0.79
35	41	1464	12.7	12.1	11.6	13.6	14.5	1.84	4.7	6.9	0.40	2.80	18.4	101	2.61	0.192	0.181	5.2	0.21	1990	1181	145	41	B	G	0.0773	113.1	2.76	1307	12.8	103.6	2.53	733	15.1	79.3	1.94	473	16.4	54.8	1.34
40	46	1364	14.0	13.3	12.8	14.8	15.8	1.98	5.0	7.9	0.38	3.27	20.9	100	2.71	0.182	0.172	5.6	0.25	2196	1181	154	45	B	G	0.1022	139.4	3.03	1268	13.9	130.3	2.84	847	15.9	109.8	2.39	618	17.0	84.7	1.84
45	51	1269	15.2	14.5	13.9	16.0	17.0	2.12	5.2	8.7	0.37	3.75	23.0	99	2.81	0.176	0.166	5.9	0.27	2371	1181	160	48	B	G	0.1296	164.4	3.23	1209	15.0	155.8	3.06	904	16.7	138.4	2.72	717	17.6	114.7	2.25
50	56	1181	16.3	15.7	14.9	17.0	18.0	2.26	5.3	9.5	0.36	4.22	24.8	98	2.91	0.171	0.162	6.1	0.30	2518	1181	165	50	B	G	0.1591	187.9	3.36	1142	16.0	179.6	3.21	922	17.5	164.8	2.95	774	18.3	143.0	2.56
55	61	1100	17.4	16.8	15.8	17.9	18.9	2.38	5.5	10.2	0.35	4.70	26.3	97	3.02	0.169	0.159	6.3	0.32	2639	1181	168	52	C	G	0.1903	209.3	3.43	1074	17.0	201.3	3.30	915	18.2	188.4	3.09	799	19.0	168.9	2.77
60	66	1027	18.5	17.8	16.6	18.7	19.8	2.50	5.7	10.8	0.34	5.17	27.6	96	3.12	0.167	0.158	6.4	0.34	2740	1181	170	53	C	G	0.2229	228.9	3.47	1010	18.0	221.1	3.35	893	19.0	209.7	3.18	803	19.7	192.2	2.91
65	71	960	19.5	18.8	17.4	19.5	20.6	2.61	5.8	11.3	0.34	5.65	28.6	95	3.23	0.166	0.157	6.5	0.35	2823	1181	171	54	C	G	0.2565	246.2	3.47	948	19.0	238.6	3.36	861	19.8	228.2	3.22	792	20.4	212.7	3.00
70	76	900	20.4	19.7	18.1	20.2	21.3	2.72	6.0	11.8	0.33	6.11	29.5	94	3.33	0.165	0.157	6.5	0.37	2891	1181	171	55	C	G	0.2908	261.7	3.45	892	19.8	254.2	3.35	827	20.6	244.7	3.22	773	21.1	230.9	3.04
75	81	847	21.3	20.6	18.8	20.8	21.9	2.82	6.1	12.3	0.33	6.57	30.3	92	3.44	0.165	0.157	6.6	0.38	2947	1181	170	56	C	G	0.3256	275.8	3.41	841	20.7	268.4	3.32	792	21.4	259.4	3.20	749	21.9	247.0	3.05
80	86	798	22.2	21.5	19.4	21.4	22.5	2.92	6.3	12.7	0.33	7.02	30.8	91	3.54	0.166	0.157	6.5	0.39	2993	1181	169	56	C	G	0.3607	287.8	3.35	794	21.5	280.5	3.26	756	22.1	272.0	3.16	722	22.5	260.8	3.03
85	91	755	23.0	22.3	19.9	21.9	23.0	3.01	6.4	13.1	0.33	7.46	31.4	90	3.64	0.166	0.158	6.5	0.40	3032	1181	168	56	C	G	0.3956	298.7	3.28	752	22.3	291.5	3.21	722	22.8	283.3	3.12	695	23.2	273.1	3.00
90	96	716	23.8	23.0	20.4	22.4	23.5	3.10	6.6	13.4	0.33	7.90	31.8	89	3.74	0.167	0.159	6.5	0.41	3065	1181	167	57	C	G	0.4304	308.2	3.21	714	23.1	301.1	3.14	690	23.5	293.1	3.05	669	23.9	283.9	2.96
95	101	680	24.5	23.8	20.9	22.9	23.9	3.18	6.7	13.7	0.32	8.32	32.1	88	3.83	0.168	0.160	6.5	0.42	3093	1181	166	57	C	G	0.4650	316.2	3.13	678	23.8	309.2	3.06	660	24.2	301.4	2.99	642	24.5	292.9	2.90
100	106	649	25.2	24.5	21.4	23.3	24.4	3.26	6.8	14.0	0.32	8.74	32.5	87	3.93	0.169	0.161	6.5	0.43	3117	1181	164	57	C	G	0.4991	323.9	3.06	648	24.5	316.9	2.99	633	24.9	309.3	2.92	618	25.1	301.4	2.84
105	111	620	25.9	25.2	21.8	23.7	24.7	3.34	6.9	14.2	0.32	9.14	32.7	86	4.02	0.170	0.162	6.4	0.43	3138	1181	163	57	C	G	0.5324	330.1	2.98	619	25.2	323.2	2.91	607	25.5	315.7	2.85	595	25.7	308.4	2.78
110	116	594	26.6	25.8	22.2	24.0	25.1	3.41	7.0	14.4	0.32	9.54	32.9	86	4.10	0.171	0.164	6.4	0.44	3157	1181	161	57	C	G	0.5652	335.7	2.90	593	25.8	328.9	2.84	583	26.1	321.5	2.77	573	26.3	314.7	2.71
115	121	571	27.2	26.4	22.5	24.4	25.4	3.48	7.1	14.6	0.32	9.92	33.1	85	4.18	0.172	0.165	6.4	0.44	3174	1181	160	57	C	G	0.5972	341.0	2.82	571	26.4	334.2	2.76	562	26.7	326.9	2.70	554	26.9	320.5	2.65
120	126	550	27.8	27.0	22.9	24.7	25.7	3.55	7.2	14.7	0.33	10.30	33.3	84	4.26	0.173	0.166	6.3	0.45	3190	1181	159	57	C	G	0.6284	345.6	2.74	550	27.0	338.9	2.69	543	27.2	331.6	2.63	536	27.4	325.7	2.59
125	131	530	28.3	27.6	23.2	25.0	26.0	3.61	7.3	14.9	0.33	10.66	33.4	83	4.34	0.174	0.167	6.3	0.45	3205	1181	158	56	C	G	0.6587	349.1	2.67	530	27.6	342.5	2.62	524	27.8	335.2	2.56	518	27.9	329.6	2.52
130	136	513	28.9	28.1	23.5	25.3	26.3	3.67	7.4	15.0	0.33	11.01	33.6	82	4.42	0.175	0.168	6.3	0.46	3219	1181	157	57	C	G	0.6883	353.1	2.60	513	28.1	346.4	2.55	508	28.3	339.2	2.50	503	28.4	333.9	2.46
135	141	497	29.4	28.6	23.8	25.5	26.5	3.73	7.5	15.1	0.33	11.36	33.8	81	4.49	0.176	0.169	6.2	0.47	3233	1181	155	56	C	G	0.7169	356.3	2.53	497	28.6	349.7	2.48	493	28.8	342.5	2.43	488	28.9	337.4	2.39
140	146	482	29.9	29.1	24.1	25.8	26.8	3.78	7.5	15.2	0.33	11.69	33.9	81	4.55	0.177	0.170	6.2	0.47	3247	1181	154	56	C	G	0.7446	358.9	2.46	482	29.1	352.3	2.41	478	29.3	345.1	2.36	474	29.4	340.3	2.33
145	151	469	30.4	29.6	24.3	26.0	27.0	3.84	7.6	15.3	0.33	12.02	34.0	80	4.62	0.178	0.171	6.2	0.47	3260	1181	153	56	C	G	0.7714	361.8	2.40	469	29.6	355.2	2.35	466	29.7	348.1	2.31	462	29.9	343.5	2.28
150	156	456	30.9	30.1	24.6	26.2	27.2	3.89	7.7	15.4	0.33	12.34	34.1	79	4.68	0.179	0.172	6.1	0.48	3274	1181	152	56	C	G	0.7971	363.5	2.33	456	30.1	357.0	2.29	453	30.2	349.9	2.24	450	30.3	345.5	2.22
155	161	445	31.3	30.5	24.8	26.4	27.4	3.94	7.7	15.4	0.33	12.65	34.2	78	4.74	0.179	0.173	6.1	0.48	3287	1181	152	56	C	G	0.8222	365.9	2.27	445	30.5	359.4	2.23	443	30.6	352.3	2.19	440	30.7	348.0	2.16
160	166	434	31.7	30.9	25.0	26.6	27.6	3.98	7.8	15.5	0.33	12.95	34.3	77	4.80	0.180	0.174	6.1	0.49	3301	1181	151	56	C	G	0.8463	367.3	2.21	434	30.9	360.8	2.17	432	31.0	353.7	2.13	430	31.1	349.7	2.11
165	171	425	32.1	31.4	25.2	26.8	27.8	4.03	7.9	15.5	0.33	13.24	34.5	77	4.85	0.181	0.175	6.1	0.49	3315	1181	150	56	C	G	0.8696	369.6	2.16	425	31.4	363.1	2.12	423	31.5	356.0	2.08	421	31.5	352.1	2.06
170	176	416	32.5	31.8	25.4	27.0	27.9	4.07	7.9	15.5	0.33	13.53	34.6	76	4.90	0.182	0.176	6.1	0.49	3328	1181	150	56	C	G	0.8918	371.0	2.11	416	31.8	364.6	2.07	415	31.8	357.5	2.03	412	31.9	353.6	2.01
175	181	407	32.9	32.1	25.6	27.1	28.1	4.12	8.0	15.5	0.34	13.81	34.7	75	4.96	0.183	0.176	6.0	0.50	3343	1181	149	56	C	G	0.9133	371.7	2.05	407	32.1	365.3	2.02	406	32.2	358.2	1.98	404	32.3	354.6	1.96
180	186	400	33.3	32.5	25.8	27.3	28.2	4.16	8.0	15.6	0.34	14.08	34.8	75	5.00	0.183	0.177	6.0	0.50	3357	1181	148	56	C	G	0.9343	373.7	2.01	400	32.5	367.2	1.97	399	32.6	360.1	1.94	397	32.7	356.5	1.92

Table A93. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
		Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		SI = 18 m Initial Density = 3000 stems/ha																																						
5	11	2957	2.1	2.0	2.5	3.1	3.3	0.74	1.9	0.5	0.77	0.44	1.0	141	1.84	0.588	0.560	0.7	0.01	482	1533	33	13	A	G	0.0004	1.3	0.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	2859	4.1	3.8	4.1	5.2	5.5	0.91	2.6	1.4	0.64	0.67	3.8	117	1.87	0.363	0.343	1.9	0.04	791	1533	66	19	A	G	0.0029	8.3	0.52	6	8.5	0.1	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	2718	5.9	5.5	5.7	7.1	7.6	1.09	3.2	2.5	0.55	0.96	7.3	112	1.92	0.270	0.253	3.0	0.08	1144	1533	98	26	A	G	0.0084	22.7	1.08	411	8.7	6.5	0.31	2	12.3	0.1	0.00	0	0.0	0.0	0.00
20	26	2549	7.5	7.0	7.3	8.9	9.6	1.26	3.5	3.7	0.48	1.30	11.2	110	1.98	0.221	0.207	4.1	0.13	1499	1533	125	33	B	G	0.0172	43.9	1.69	1117	9.3	26.4	1.02	55	13.0	3.0	0.12	7	14.6	0.4	0.02
25	31	2365	9.0	8.5	8.7	10.6	11.4	1.42	3.8	4.8	0.44	1.67	14.9	108	2.06	0.194	0.181	5.0	0.17	1831	1533	148	40	B	G	0.0295	69.8	2.26	1539	10.1	53.5	1.73	258	13.5	17.4	0.56	72	15.0	5.4	0.17
30	36	2179	10.4	9.8	10.1	12.1	13.0	1.58	4.1	5.9	0.40	2.07	18.4	107	2.14	0.176	0.165	5.7	0.22	2125	1533	165	45	B	G	0.0451	98.3	2.73	1701	11.1	83.6	2.33	544	14.0	44.5	1.24	237	15.4	21.2	0.59
35	41	1999	11.7	11.1	11.3	13.5	14.5	1.73	4.3	6.9	0.38	2.48	21.4	105	2.24	0.166	0.155	6.3	0.25	2376	1533	178	50	B	G	0.0637	127.4	3.11	1717	12.0	114.2	2.79	799	14.6	78.3	1.91	450	15.9	47.7	1.17
40	46	1829	12.9	12.4	12.5	14.7	15.8	1.87	4.5	7.8	0.36	2.90	24.0	104	2.34	0.159	0.148	6.7	0.29	2584	1533	186	53	C	G	0.0852	155.8	3.39	1658	13.1	143.7	3.13	974	15.2	113.1	2.46	645	16.4	80.1	1.74
45	51	1673	14.1	13.5	13.5	15.9	17.0	2.01	4.7	8.6	0.35	3.34	26.2	102	2.44	0.154	0.144	7.0	0.32	2754	1533	192	56	C	G	0.1091	182.5	3.58	1567	14.1	171.3	3.36	1069	15.9	145.9	2.86	790	17.0	113.7	2.23
50	56	1533	15.3	14.6	14.5	16.9	18.0	2.13	4.9	9.4	0.34	3.78	28.0	101	2.55	0.151	0.142	7.2	0.34	2890	1533	195	58	C	G	0.1351	207.1	3.70	1465	15.1	196.6	3.51	1107	16.7	175.6	3.14	881	17.6	145.9	2.61
55	61	1407	16.3	15.7	15.4	17.8	18.9	2.26	5.1	10.1	0.33	4.22	29.5	100	2.67	0.150	0.141	7.3	0.36	2997	1533	197	59	C	G	0.1630	229.4	3.76	1363	16.0	219.5	3.60	1104	17.4	201.7	3.31	927	18.3	175.2	2.87
60	66	1295	17.4	16.7	16.2	18.6	19.8	2.38	5.3	10.7	0.33	4.67	30.7	99	2.78	0.149	0.140	7.4	0.38	3081	1533	197	60	C	G	0.1925	249.3	3.78	1265	17.0	239.8	3.64	1078	18.2	224.6	3.41	940	18.9	201.1	3.05
65	71	1196	18.4	17.7	17.0	19.3	20.6	2.49	5.4	11.2	0.32	5.11	31.7	97	2.89	0.149	0.141	7.4	0.40	3147	1533	196	61	C	G	0.2232	266.9	3.76	1176	17.9	257.8	3.63	1038	18.9	244.4	3.44	932	19.6	223.7	3.15
70	76	1108	19.3	18.6	17.7	20.0	21.3	2.59	5.6	11.7	0.32	5.56	32.4	96	3.00	0.150	0.141	7.4	0.41	3197	1533	194	62	C	G	0.2548	282.3	3.72	1094	18.8	273.5	3.60	992	19.7	261.6	3.44	910	20.3	243.3	3.20
75	81	1030	20.2	19.5	18.3	20.7	21.9	2.70	5.8	12.2	0.32	6.00	33.0	95	3.12	0.151	0.142	7.3	0.42	3235	1533	192	62	C	G	0.2871	295.7	3.65	1020	19.6	287.2	3.55	943	20.4	276.2	3.41	879	21.0	260.1	3.21
80	86	962	21.1	20.4	18.9	21.2	22.5	2.79	5.9	12.6	0.32	6.43	33.5	94	3.22	0.152	0.143	7.3	0.43	3264	1533	190	62	C	G	0.3199	307.7	3.58	955	20.5	299.4	3.48	897	21.1	289.3	3.37	846	21.6	274.8	3.20
85	91	901	21.9	21.2	19.5	21.8	23.0	2.89	6.1	13.0	0.32	6.86	33.9	93	3.33	0.153	0.145	7.2	0.43	3287	1533	188	62	C	G	0.3528	317.9	3.50	896	21.3	309.8	3.41	851	21.8	300.2	3.30	811	22.3	287.3	3.16
90	96	847	22.7	22.0	20.0	22.3	23.5	2.98	6.2	13.3	0.31	7.28	34.2	92	3.44	0.154	0.146	7.2	0.44	3303	1533	185	62	C	G	0.3858	326.8	3.41	843	22.0	318.9	3.32	808	22.5	309.7	3.23	776	22.9	298.1	3.11
95	101	799	23.4	22.7	20.5	22.7	23.9	3.06	6.3	13.6	0.31	7.70	34.4	91	3.54	0.156	0.148	7.1	0.45	3316	1533	183	61	C	G	0.4188	334.6	3.31	796	22.8	326.8	3.24	768	23.2	318.0	3.15	743	23.6	307.4	3.05
100	106	756	24.1	23.4	20.9	23.1	24.4	3.14	6.5	13.9	0.31	8.10	34.6	89	3.64	0.157	0.149	7.0	0.45	3326	1533	180	61	C	G	0.4513	341.2	3.22	754	23.5	333.6	3.15	732	23.9	325.1	3.07	711	24.2	315.4	2.98
105	111	717	24.8	24.1	21.3	23.5	24.7	3.22	6.6	14.1	0.32	8.50	34.7	88	3.73	0.159	0.151	7.0	0.46	3334	1533	178	61	C	G	0.4835	346.7	3.13	715	24.1	339.2	3.06	698	24.5	330.9	2.98	680	24.8	322.0	2.90
110	116	683	25.5	24.7	21.7	23.9	25.1	3.29	6.7	14.3	0.32	8.89	34.8	87	3.83	0.160	0.152	6.9	0.46	3340	1533	175	61	C	G	0.5152	351.9	3.04	682	24.8	344.5	2.97	667	25.1	336.4	2.90	653	25.4	328.2	2.83
115	121	652	26.1	25.4	22.1	24.2	25.4	3.36	6.8	14.5	0.32	9.27	34.9	87	3.92	0.162	0.154	6.8	0.47	3345	1533	173	60	C	G	0.5463	356.2	2.95	651	25.4	348.9	2.88	639	25.7	340.9	2.82	627	25.9	333.3	2.76
120	126	624	26.7	26.0	22.4	24.5	25.7	3.43	6.9	14.7	0.32	9.64	35.0	86	4.00	0.163	0.156	6.8	0.47	3350	1533	171	60	C	G	0.5769	360.0	2.86	623	26.0	352.7	2.80	613	26.3	344.9	2.74	603	26.5	337.8	2.68
125	131	599	27.3	26.6	22.8	24.8	26.0	3.50	7.0	14.8	0.32	10.00	35.1	85	4.09	0.165	0.157	6.7	0.47	3354	1533	169	60	C	G	0.6067	363.4	2.78	599	26.6	356.2	2.72	590	26.8	348.5	2.66	582	27.0	341.9	2.61
130	136	576	27.9	27.1	23.1	25.1	26.3	3.56	7.1	14.9	0.32	10.35	35.1	84	4.17	0.166	0.159	6.7	0.48	3359	1533	167	60	C	G	0.6356	366.1	2.69	576	27.1	359.1	2.64	569	27.3	351.4	2.58	561	27.5	345.1	2.54
135	141	555	28.4	27.6	23.3	25.4	26.5	3.62	7.2	15.0	0.32	10.70	35.2	83	4.24	0.167	0.160	6.6	0.48	3364	1533	165	59	C	G	0.6638	368.4	2.61	555	27.6	361.4	2.56	549	27.8	353.9	2.51	542	28.0	347.9	2.47
140	146	537	28.9	28.2	23.6	25.6	26.8	3.67	7.3	15.2	0.32	11.04	35.3	82	4.32	0.169	0.161	6.6	0.48	3368	1533	164	59	C	G	0.6914	371.3	2.54	537	28.2	364.3	2.50	532	28.3	356.8	2.44	526	28.5	351.2	2.41
145	151	519	29.4	28.6	23.9	25.8	27.0	3.73	7.4	15.2	0.32	11.36	35.3	81	4.39	0.170	0.163	6.5	0.49	3374	1533	162	59	C	G	0.7179	372.6	2.47	519	28.6	365.7	2.42	515	28.8	358.2	2.37	510	28.9	353.0	2.34
150	156	504	29.9	29.1	24.1	26.1	27.2	3.78	7.4	15.3	0.32	11.68	35.4	80	4.45	0.171	0.164	6.5	0.49	3380	1533	161	59	C	G	0.7438	374.9	2.40	504	29.1	368.0	2.36	500	29.3	360.5	2.31	496	29.4	355.5	2.28
155	161	489	30.4	29.6	24.3	26.3	27.4	3.83	7.5	15.4	0.33	11.99	35.4	80	4.52	0.172	0.165	6.4	0.49	3386	1533	160	59	C	G	0.7687	375.9	2.34	489	29.6	369.1	2.29	486	29.7	361.7	2.25	482	29.8	356.9	2.22
160	166	476	30.8	30.0	24.6	26.5	27.6	3.88	7.6	15.4	0.33	12.30	35.5	79	4.58	0.173	0.166	6.4	0.50	3393	1533	159	59	C	G	0.7929	377.4	2.27	476	30.0	370.6	2.23	473	30.1	363.2	2.19	470	30.2	358.7	2.16
165	171	464	31.2	30.4	24.8	26.6	27.8	3.93	7.6	15.5	0.33	12.59	35.5	78	4.64	0.174	0.167	6.4	0.50	3400	1533	158	58	C	G	0.8164	378.8	2.22	464	30.4	372.0	2.18	462	30.5	364.7	2.13	459	30.6	360.2	2.11
170	176	452	31.6	30.9	25.0	26.8	27.9	3.97	7.7	15.5	0.33	12.88	35.5	77	4.70	0.175	0.168	6.3	0.50	3408	1533	156	58	C	G	0.8387	379.1	2.15	452	30.9	372.4	2.12	450	30.9	365.1	2.08	447	31.1	360.8	2.05
175	181	442	32.0	31.2	25.1	27.0	28.1	4.02	7.8	15.5	0.33	13.16	35.6	77	4.76	0.176	0.169	6.3	0.50	3416	1533	155	58	C	G	0.8606	380.4	2.10	442	31.2	373.7	2.07	440	31.3	366.3	2.02	438	31.4	362.3	2.00
180	186	432	32.4	31.6	25.3	27.1	28.2	4.06	7.8	15.5	0.33	13.44	35.7	76	4.81	0.177	0.170	6.3	0.51	3425	1533	154	58	C	G	0.8815	380.8	2.05	432	31.6	374.1	2.01	430	31.7	366.8	1.97	428	31.8	362.9	1.95
		SI = 18 m Initial Density = 4000 stems/ha																																						
5	11	3932	1.9	1.8	2.5	3.1	3.3	0.73	1.8	0.5	0.75	0.42	1.2	149	1.59	0.511	0.485	0.8	0.01	617	1843	41	17	A	G	0.0004	1.4	0.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	3777	3.8	3.6	4.0	5.1	5.5	0.88	2.5	1.4	0.62	0.63	4.3	122	1.63	0.317	0.298	2.2	0.05	974	1843	81	24	A	G	0.0024	9.2	0.58	2	8.3	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	3557	5.5	5.1	5.6	7.1	7.6	1.05	2.9	2.5	0.53	0.89	8.3	116	1.68	0.236	0.221	3.6	0.09	1373	1843	118	32	B	G	0.0071	25.1	1.20	350	8.5	5.1	0.24	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	3297	7.0	6.6	7.1	8.9	9.6	1.21	3.3	3.7	0.46	1.19	12.6	113	1.74	0.195	0.182	4.8	0.14	1766	1843	149	39	B	G	0.0146	48.3	1.86	1195	9.0	25.4	0.98	30	12.9	1.6	0.06	3	14.3	0.2	0.01
25	31	3021	8.4	8.0	8.6	10.6	11.4	1.36	3.6	4.8	0.42	1.53	16.8	111	1.82	0.172	0.160	5.8	0.20	2123	1843	174	46	B	G	0.0253	76.4	2.47	1779	9.8	55.0	1.78	200	13.3	13.0	0.42	43	14.8	3.1	0.10
30	36	2747	9.7	9.3	9.9	12.1	13.0	1.51	3.8	5.9	0.39	1.89	20.5	110	1.91	0.158	0.147	6.6	0.24	2432	1843	192	52	C	G	0.0389	106.9	2.97	2024	10.6	87.9	2.45	503	13.7	39.0	1.09	183	15.2	15.7	0.44
35	41	2487	11.0	10.5	11.1	13.4	14.5	1.65	4.0	6.8	0.36	2.27	23.7	108	2.01	0.149	0.139	7.1	0.29	2688	1843	205	56	C	G	0.0554	137.7	3.36	2061	11.5	121.0	2.96	811	14.3	74.5	1.82	404	15.6	40.5	0.99
40	46	2248	12.2	11.7	12.2	14.7	15.8	1.79	4.2	7.7	0.35	2.66	26.4	106	2.11	0.144	0.134	7.6	0.32	2894	1843	213	60	C	G	0.0745	167.5	3.65	1991	12.5	152.5	3.32	1041	14.8	112.4	2.45	632	16.1	73.6	1.60
45	51	2033	13.4	12.8	13.3	15.8	17.0	1.92	4.4	8.5	0.34	3.07	28.7	105	2.22	0.141	0.131	7.8	0.35	3056	1843	217	62	C	G	0.0961	195.3	3.83	1874	13.4	181.7	3.57	1178	15.5	148.5	2.91	817	16.6	109.6	2.15
50	56	1843	14.5	13.9	14.2	16.8	18.0	2.05	4.6	9.3	0.33	3.48	30.5	103	2.33	0.139	0.129	8.0	0.38	3181	1843	219	64	C	G	0.1198	220.7	3.95	1742	14.4	208.2	3.72	1239	16.2	181.0	3.24	941	17.2	144.6	2.58
55	61	1675	15.6	15.0	15.1	17.7	18.9	2.17	4.8	9.9	0.32	3.90	31.9	102	2.44	0.138	0.129	8.1	0.40	3276	1843	219	65	C	G	0.1453	243.4	3.99	1610	15.3	231.8	3.80	1247	16.9	209.3	3.43	1010	17.8	176.5	2.90
60	66	1528	16.6	16.0	15.9	18.5	19.8	2.29	5.0	10.6	0.32	4.33	33.0	101	2.56	0.138	0.129	8.1	0.41	3346	1843	218	66	C	G	0.1725	263.6	4.00	1485	16.3	252.7	3.83	1222	17.6	233.7	3.54	1037	18.4	204.7	3.10
65	71	1399	17.6	16.9	16.7	19.2	20.6	2.40	5.2	11.1	0.31	4.75	33.9	99	2.67	0.139	0.130	8.1	0.43	3397	1843	216	67	C	G	0.2010	281.2	3.96	1370	17.2	270.9	3.82	1178	18.3	254.6	3.59	1035	19.0	229.2	3.23
70	76	1286	18.5	17.8	17.4	19.9	21.3	2.50	5.3	11.6	0.31	5.18	34.6	98	2.79	0.140	0.131	8.0	0.44	3433	1843	213	67	C	G	0.2306	296.5	3.90	1266	18.0	286.6	3.77	1124	19.0	272.3	3.59	1013	19.7	250.0	3.29
75	81	1188	19.4	18.7	18.0	20.5	21.9	2.61	5.5	12.1	0.31	5.60	35.1	97	2.90	0.141	0.133	8.0	0.45	3457	1843	210	67	C	G	0.2609	310.0	3.83	1174	18.9	300.5	3.71	1068	19.7	287.7	3.55	982	20.3	268.1	3.31
80	86	1101	20.2	19.6	18.6	21.1	22.5	2.70	5.7	12.5	0.31	6.02	35.5	96	3.01	0.143	0.134	7.9	0.45	3473	1843	206	66	C	G	0.2918	321.3	3.74	1091	19.7	312.2	3.63	1011	20.4	300.5	3.50	943	21.0	283.1	3.29
85	91	1025	21.1	20.4	19.1	21.6	23.0	2.80	5.8	12.9	0.31	6.44	35.7	94	3.12	0.144	0.136	7.8	0.46	3482	1843	203	66	C	G	0.3231	331.2	3.64	1018	20.5	322.3	3.54	956	21.1	311.5	3.43	903	21.6	296.1	3.26
90	96	959	21.9	21.2	19.7	22.1	23.5	2.88	6.0	13.2	0.31	6.85	36.0	93	3.23	0.146	0.137	7.7	0.46	3487	1843	200	66	C	G	0.3546	340.1	3.54	954	21.2	331.4	3.45	906	21.8	321.2	3.35	864	22.2	307.5	3.20
95	101	899	22.6	21.9	20.1	22.6	23.9	2.97	6.1	13.5	0.31	7.25	36.1	92	3.34	0.148	0.139	7.6	0.47	3488	1843	196	65	C	G	0.3860	347.0	3.44	895	22.0	338.7	3.36	858	22.5	329.0	3.26	824	22.9	316.6	3.14
100	106	847	23.3	22.6	20.6	23.0	24.4	3.05	6.2	13.8	0.31	7.65	36.2	91	3.44	0.149	0.141	7.5	0.47	3488	1843	193	65	C	G	0.4174	353.5	3.34	844	22.7	345.3	3.26	814	23.1	336.0	3.17	787	23.5	324.7	3.06
105	111	800	24.0	23.3	21.0	23.4	24.7	3.13	6.4	14.0	0.31	8.04	36.3	90	3.54	0.151	0.143	7.4	0.48	3485	1843	189	64	C	G	0.4484	358.7	3.23	798	23.3	350.7	3.16	774	23.7	341.7	3.08	751	24.1	331.4	2.99
110	116	758	24.7	24.0	21.4	23.7	25.1	3.20	6.5	14.2	0.31	8.42	36.3	89	3.63	0.153	0.145	7.3	0.48	3482	1843	186	64	C	G	0.4790	363.1	3.13	756	24.0	355.3	3.06	737	24.4	346.6	2.99	718	24.7	337.1	2.91
115	121	721	25.3	24.6	21.7	24.1	25.4	3.27	6.6	14.4	0.31	8.79	36.3	88	3.72	0.155	0.146	7.2	0.48	3478	1843	184	63	C	G	0.5093	367.2	3.04	720	24.6	359.5	2.97	704	24.9	351.0	2.90	688	25.2	342.2	2.83
120	126	688	25.9	25.2	22.1	24.4	25.7	3.34	6.7	14.6	0.31	9.16	36.3	87	3.81	0.156	0.148	7.1	0.49	3475	1843	181	63	C	G	0.5390	370.8	2.94	687	25.2	363.2	2.88	674	25.5	354.9	2.82	661	25.8	346.8	2.75
125	131	657	26.5	25.8	22.4	24.7	26.0	3.41	6.8	14.7	0.31	9.51	36.3	86	3.90	0.158	0.150	7.0	0.49	3471	1843	178	63	C	G	0.5680	373.2	2.85	656	25.8	365.7	2.79	645	26.1	357.5	2.73	634	26.3	350.0	2.67
130	136	630	27.1	26.3	22.7	25.0	26.3	3.47	6.9	14.9	0.31	9.86	36.3	85	3.98	0.160	0.152	7.0	0.49	3468	1843	176	62	C	G	0.5965	375.8	2.76	630	26.3	368.4	2.71	620	26.6	360.3	2.65	611	26.8	353.3	2.60
135	141	605	27.6	26.9	23.0	25.2	26.5	3.53	7.0	15.0	0.32	10.20	36.3	84	4.07	0.161	0.153	6.9	0.49	3466	1843	174	62	C	G	0.6243	377.7	2.68	605	26.9	370.3	2.63	597	27.1	362.4	2.57	589	27.3	355.8	2.52
140	146	583	28.2	27.4	23.3	25.5	26.8	3.59	7.1	15.1	0.32	10.54	36.3	83	4.14	0.163	0.155	6.8	0.50	3464	1843	172	61	C	G	0.6513	379.7	2.60	583	27.4	372.4	2.55	576	27.6	364.6	2.50	569	27.8	358.3	2.46
145	151	563	28.7	27.9	23.5	25.7	27.0	3.65	7.2	15.2	0.32	10.86	36.3	82	4.21	0.164	0.156	6.8	0.50	3464	1843	170	61	C	G	0.6776	381.5	2.53	563	27.9	374.3	2.48	557	28.1	366.5	2.43	551	28.2	360.6	2.39
150	156	544	29.1	28.4	23.7	25.9	27.2	3.70	7.3	15.2	0.32	11.18	36.3	82	4.29	0.165	0.158	6.7	0.50	3463	1843	168	61	C	G	0.7031	382.5	2.45	544	28.4	375.4	2.41	539	28.5	367.6	2.36	534	28.7	362.1	2.32
155	161	527	29.6	28.8	24.0	26.1	27.4	3.75	7.3	15.3	0.32	11.49	36.3	81	4.36	0.167	0.159	6.7	0.50	3464	1843	166	61	C	G	0.7279	383.6	2.38	527	28.8	376.5	2.34	523	29.0	368.9	2.29	518	29.1	363.6	2.26
160	166	511	30.1	29.3	24.2	26.3	27.6	3.80	7.4	15.3	0.32	11.80	36.3	80	4.42	0.168	0.160	6.6	0.50	3466	1843	165	60	C	G	0.7519	384.2	2.32	511	29.3	377.2	2.27	507	29.4	369.6	2.23	503	29.6	364.5	2.20
165	171	497	30.5	29.7	24.4	26.5	27.8	3.85	7.5	15.4	0.32	12.09	36.3	79	4.49	0.169	0.162	6.5	0.51	3468	1843	163	60	C	G	0.7753	385.3	2.25	497	29.7	378.3	2.21	494	29.8	370.7	2.17	490	30.0	365.9	2.14
170	176	484	30.9	30.1	24.6	26.7	27.9	3.89	7.5	15.4	0.33	12.38	36.3	78	4.55	0.170	0.163	6.5	0.51	3471	1843	162	60	C	G	0.7977	386.1	2.19	484	30.1	379.2	2.16	481	30.3	371.6	2.11	478	30.4	367.0	2.09
175	181	471	31.3	30.5	24.8	26.8	28.1	3.94	7.6	15.4	0.33	12.66	36.3	78	4.61	0.172	0.164	6.5	0.51	3475	1843	161	60	C	G	0.8195	386.0	2.13	471	30.5	379.1	2.10	469	30.6	371.6	2.05	466	30.7	367.1	2.03
180	186	460	31.7	30.9	25.0	27.0	28.2	3.98	7.7	15.5	0.33	12.94	36.4	77	4.66	0.173	0.165	6.5	0.51	3480	1843	160	60	C	G	0.8407	386.7	2.08	460	30.9	379.8	2.04	458	31.0	372.3	2.00	455	31.1	368.0	1.98

Table A94. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
		SI = 18 m Initial Density = 5000 stems/ha																																						
5	11	4904	1.8	1.7	2.4	3.1	3.3	0.72	1.7	0.6	0.74	0.41	1.3	156	1.43	0.458	0.435	0.9	0.01	747	2126	48	20	A	G	0.0003	1.6	0.15	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	4686	3.6	3.4	4.0	5.1	5.5	0.86	2.3	1.5	0.61	0.60	4.7	126	1.46	0.285	0.268	2.5	0.05	1145	2126	93	28	A	G	0.0021	9.9	0.62	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	4379	5.2	4.8	5.5	7.1	7.6	1.02	2.8	2.5	0.51	0.84	9.2	119	1.51	0.214	0.199	4.0	0.10	1582	2126	135	37	B	G	0.0062	27.0	1.29	288	8.4	4.0	0.19	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	4021	6.6	6.2	7.0	8.9	9.6	1.17	3.1	3.7	0.45	1.12	13.9	116	1.58	0.177	0.165	5.4	0.16	2004	2126	170	45	B	G	0.0129	51.8	2.00	1219	8.8	24.0	0.93	17	12.8	0.9	0.03	0	0.0	0.0	0.00
25	31	3647	8.0	7.6	8.4	10.5	11.4	1.32	3.4	4.8	0.41	1.43	18.3	114	1.66	0.157	0.145	6.5	0.22	2381	2126	196	52	C	G	0.0223	81.5	2.63	1955	9.5	55.3	1.79	152	13.1	9.6	0.31	25	14.7	1.8	0.06
30	36	3283	9.3	8.8	9.7	12.0	13.0	1.46	3.6	5.8	0.38	1.76	22.3	112	1.75	0.145	0.134	7.3	0.27	2698	2126	215	58	C	G	0.0346	113.6	3.16	2290	10.3	90.4	2.52	451	13.5	33.7	0.94	139	15.0	11.5	0.32
35	41	2944	10.5	10.0	10.9	13.4	14.5	1.60	3.8	6.8	0.35	2.12	25.6	110	1.84	0.138	0.127	7.9	0.31	2955	2126	228	62	C	G	0.0495	145.8	3.56	2358	11.1	125.6	3.07	794	14.0	69.6	1.70	353	15.4	34.0	0.83
40	46	2637	11.7	11.2	12.0	14.6	15.8	1.73	4.0	7.6	0.34	2.49	28.4	108	1.95	0.133	0.123	8.3	0.35	3156	2126	235	66	C	G	0.0670	176.6	3.84	2284	12.0	158.8	3.46	1072	14.6	109.7	2.39	601	15.8	66.7	1.45
45	51	2365	12.9	12.3	13.1	15.7	17.0	1.86	4.2	8.4	0.33	2.87	30.7	107	2.06	0.131	0.121	8.6	0.38	3310	2126	239	68	C	G	0.0868	205.2	4.03	2148	13.0	189.4	3.72	1250	15.2	148.5	2.91	817	16.3	104.0	2.04
50	56	2126	13.9	13.4	14.0	16.7	18.0	1.99	4.4	9.2	0.32	3.27	32.4	105	2.17	0.130	0.120	8.7	0.40	3425	2126	240	69	C	G	0.1087	231.0	4.13	1989	13.9	216.7	3.87	1337	15.8	183.4	3.28	972	16.9	141.1	2.52
55	61	1919	15.0	14.4	14.9	17.6	18.9	2.11	4.6	9.8	0.31	3.67	33.8	104	2.28	0.130	0.121	8.7	0.42	3507	2126	239	70	D	G	0.1325	254.2	4.17	1831	14.8	241.0	3.95	1360	16.5	213.7	3.51	1065	17.4	175.3	2.88
60	66	1739	16.0	15.4	15.7	18.4	19.8	2.22	4.8	10.4	0.31	4.08	34.9	102	2.40	0.130	0.121	8.7	0.44	3565	2126	236	71	D	G	0.1578	274.5	4.16	1680	15.7	262.2	3.98	1340	17.1	239.7	3.63	1108	18.0	205.6	3.12
65	71	1583	17.0	16.3	16.4	19.2	20.6	2.33	4.9	11.0	0.31	4.48	35.7	101	2.51	0.131	0.122	8.7	0.45	3604	2126	233	71	D	G	0.1846	292.2	4.12	1543	16.6	280.7	3.96	1295	17.8	261.6	3.69	1115	18.6	231.8	3.27
70	76	1447	17.9	17.2	17.1	19.8	21.3	2.43	5.1	11.5	0.30	4.89	36.3	99	2.63	0.133	0.124	8.6	0.46	3628	2126	229	71	D	G	0.2124	307.4	4.05	1420	17.4	296.6	3.91	1237	18.5	280.1	3.69	1097	19.2	254.0	3.34
75	81	1330	18.8	18.1	17.7	20.5	21.9	2.54	5.3	12.0	0.30	5.30	36.8	98	2.74	0.134	0.125	8.5	0.47	3641	2126	225	71	D	G	0.2412	320.8	3.96	1311	18.3	310.4	3.83	1175	19.2	295.9	3.66	1066	19.9	273.0	3.37
80	86	1227	19.6	18.9	18.3	21.0	22.5	2.63	5.4	12.4	0.30	5.71	37.1	97	2.85	0.136	0.127	8.4	0.47	3646	2126	220	70	D	G	0.2706	332.0	3.86	1213	19.1	322.1	3.75	1111	19.9	309.0	3.60	1025	20.5	288.8	3.36
85	91	1138	20.4	19.7	18.9	21.6	23.0	2.72	5.6	12.8	0.30	6.11	37.3	96	2.96	0.138	0.129	8.2	0.48	3645	2126	216	70	C	G	0.3004	341.9	3.76	1128	19.9	332.3	3.65	1050	20.6	320.3	3.52	982	21.1	302.5	3.33
90	96	1059	21.2	20.5	19.4	22.0	23.5	2.81	5.8	13.1	0.30	6.51	37.4	95	3.07	0.139	0.131	8.1	0.48	3640	2126	211	69	C	G	0.3305	350.0	3.65	1052	20.6	340.8	3.55	991	21.3	329.6	3.44	938	21.7	313.8	3.27
95	101	990	22.0	21.3	19.8	22.5	23.9	2.90	5.9	13.4	0.30	6.90	37.5	93	3.18	0.141	0.133	8.0	0.49	3632	2126	207	68	C	G	0.3607	357.1	3.54	985	21.3	348.2	3.45	937	21.9	337.6	3.34	894	22.3	323.4	3.20
100	106	929	22.7	22.0	20.3	22.9	24.4	2.98	6.0	13.7	0.30	7.29	37.5	92	3.28	0.143	0.135	7.9	0.49	3622	2126	203	68	C	G	0.3910	363.2	3.43	925	22.0	354.4	3.35	887	22.5	344.4	3.25	853	22.9	331.6	3.13
105	111	875	23.4	22.7	20.7	23.3	24.7	3.06	6.2	13.9	0.30	7.67	37.5	91	3.38	0.145	0.137	7.8	0.49	3612	2126	200	67	C	G	0.4209	368.3	3.32	872	22.7	359.8	3.24	842	23.2	350.2	3.16	814	23.5	338.6	3.05
110	116	826	24.0	23.3	21.1	23.6	25.1	3.13	6.3	14.1	0.30	8.04	37.5	90	3.48	0.147	0.139	7.6	0.49	3601	2126	196	66	C	G	0.4506	372.2	3.21	824	23.4	363.9	3.14	799	23.8	354.6	3.06	776	24.1	344.0	2.97
115	121	783	24.7	23.9	21.4	24.0	25.4	3.20	6.4	14.3	0.31	8.41	37.4	89	3.57	0.149	0.141	7.5	0.50	3590	2126	192	66	C	G	0.4799	375.8	3.11	781	24.0	367.7	3.04	761	24.3	358.7	2.97	742	24.6	348.9	2.88
120	126	745	25.3	24.6	21.8	24.3	25.7	3.27	6.5	14.5	0.31	8.77	37.4	88	3.66	0.151	0.142	7.4	0.50	3579	2126	189	65	C	G	0.5089	379.1	3.01	744	24.6	371.1	2.95	727	24.9	362.4	2.88	711	25.2	353.3	2.81
125	131	710	25.9	25.1	22.1	24.6	26.0	3.34	6.6	14.7	0.31	9.12	37.3	87	3.75	0.153	0.144	7.3	0.50	3570	2126	186	65	C	G	0.5373	381.5	2.91	709	25.2	373.6	2.85	695	25.5	365.0	2.79	682	25.7	356.7	2.72
130	136	679	26.4	25.7	22.4	24.9	26.3	3.40	6.7	14.8	0.31	9.47	37.3	86	3.84	0.154	0.146	7.3	0.50	3561	2126	184	64	C	G	0.5651	383.7	2.82	678	25.7	376.0	2.77	667	26.0	367.6	2.70	655	26.2	359.8	2.65
135	141	650	27.0	26.2	22.7	25.1	26.5	3.46	6.8	14.9	0.31	9.81	37.2	85	3.92	0.156	0.148	7.2	0.50	3553	2126	181	64	C	G	0.5923	385.0	2.73	649	26.3	377.4	2.68	640	26.5	369.1	2.62	630	26.7	361.8	2.57
140	146	625	27.5	26.8	22.9	25.4	26.8	3.52	6.9	15.0	0.31	10.14	37.2	84	4.00	0.158	0.149	7.1	0.50	3545	2126	178	63	C	G	0.6189	386.8	2.65	625	26.8	379.3	2.60	616	27.0	371.1	2.54	608	27.2	364.3	2.50
145	151	602	28.0	27.3	23.2	25.6	27.0	3.58	7.0	15.1	0.31	10.46	37.1	83	4.08	0.159	0.151	7.0	0.51	3539	2126	176	63	C	G	0.6449	388.2	2.57	602	27.3	380.7	2.52	595	27.5	372.7	2.47	587	27.7	366.2	2.43
150	156	580	28.5	27.8	23.4	25.8	27.2	3.63	7.1	15.2	0.32	10.77	37.0	83	4.15	0.161	0.153	6.9	0.51	3535	2126	174	62	C	G	0.6700	388.6	2.49	580	27.8	381.3	2.45	574	27.9	373.3	2.39	567	28.1	367.2	2.35
155	161	561	29.0	28.2	23.7	26.0	27.4	3.68	7.2	15.2	0.32	11.08	37.0	82	4.22	0.162	0.154	6.9	0.51	3531	2126	172	62	C	G	0.6947	389.7	2.42	561	28.2	382.4	2.38	556	28.4	374.5	2.33	550	28.6	368.7	2.29
160	166	543	29.4	28.7	23.9	26.2	27.6	3.73	7.3	15.3	0.32	11.38	37.0	81	4.29	0.164	0.156	6.8	0.51	3528	2126	170	62	C	G	0.7184	390.1	2.35	543	28.7	382.8	2.31	538	28.8	375.0	2.26	533	29.0	369.5	2.23
165	171	527	29.9	29.1	24.1	26.4	27.8	3.78	7.3	15.3	0.32	11.68	37.0	80	4.36	0.165	0.157	6.8	0.51	3526	2126	169	62	C	G	0.7416	390.8	2.29	527	29.1	383.6	2.24	523	29.3	375.8	2.20	518	29.4	370.5	2.17
170	176	512	30.3	29.5	24.3	26.6	27.9	3.83	7.4	15.4	0.32	11.97	37.0	79	4.42	0.166	0.158	6.7	0.51	3525	2126	167	61	C	G	0.7639	391.1	2.22	512	29.5	384.0	2.18	508	29.7	376.2	2.14	504	29.8	371.2	2.11
175	181	498	30.7	29.9	24.5	26.7	28.1	3.87	7.5	15.4	0.32	12.25	36.9	79	4.48	0.168	0.160	6.7	0.51	3526	2126	165	61	C	G	0.7855	391.2	2.16	498	29.9	384.1	2.12	495	30.1	376.5	2.08	491	30.2	371.6	2.05
180	186	485	31.1	30.3	24.6	26.9	28.2	3.92	7.5	15.4	0.32	12.53	36.9	78	4.54	0.169	0.161	6.6	0.52	3527	2126	164	61	C	G	0.8066	391.2	2.10	485	30.3	384.1	2.07	482	30.5	376.5	2.02	479	30.6	371.9	2.00
		SI = 18 m Initial Density = 6000 stems/ha																																						
5	11	5873	1.7	1.6	2.4	3.1	3.3	0.72	1.6	0.6	0.73	0.41	1.4	163	1.30	0.419	0.397	1.0	0.02	874	2391	55	24	A	G	0.0003	1.6	0.15	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	5587	3.4	3.2	3.9	5.1	5.5	0.85	2.2	1.5	0.59	0.58	5.1	129	1.34	0.262	0.245	2.8	0.06	1309	2391	106	32	B	G	0.0019	10.5	0.66	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	5187	4.9	4.6	5.5	7.1	7.6	0.99	2.7	2.5	0.50	0.80	9.9	122	1.39	0.197	0.183	4.5	0.11	1777	2391	151	41	B	G	0.0055	28.7	1.37	233	8.3	3.1	0.15	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	4726	6.3	6.0	6.9	8.9	9.6	1.14	3.0	3.7	0.44	1.06	14.9	118	1.45	0.164	0.152	5.9	0.18	2223	2391	189	50	C	G	0.0116	54.7	2.11	1209	8.7	22.4	0.86	9	12.7	0.5	0.02	0	0.0	0.0	0.00
25	31	4252	7.7	7.3	8.3	10.5	11.4	1.28	3.2	4.7	0.40	1.35	19.6	116	1.53	0.146	0.135	7.1	0.23	2613	2391	217	57	C	G	0.0202	85.8	2.77	2084	9.3	54.9	1.77	115	13.0	7.1	0.23	15	14.6	1.0	0.03
30	36	3796	8.9	8.5	9.6	12.0	13.0	1.42	3.4	5.7	0.37	1.67	23.8	114	1.62	0.135	0.125	8.0	0.29	2935	2391	236	63	C	G	0.0314	119.1	3.31	2513	10.0	91.8	2.55	397	13.4	28.8	0.80	105	14.9	8.5	0.24
35	41	3377	10.1	9.6	10.8	13.4	14.5	1.56	3.6	6.7	0.35	2.00	27.3	112	1.72	0.129	0.119	8.6	0.33	3190	2391	249	68	C	G	0.0451	152.3	3.72	2618	10.9	128.7	3.14	760	13.8	64.3	1.57	304	15.3	28.4	0.69
40	46	3003	11.3	10.8	11.9	14.6	15.8	1.69	3.8	7.5	0.33	2.35	30.1	110	1.82	0.125	0.116	9.0	0.37	3386	2391	255	71	D	G	0.0612	183.9	4.00	2547	11.7	163.5	3.56	1078	14.3	105.8	2.30	561	15.7	60.0	1.31
45	51	2675	12.4	11.9	12.9	15.7	17.0	1.81	4.0	8.3	0.32	2.72	32.4	108	1.93	0.123	0.114	9.2	0.40	3531	2391	258	73	D	G	0.0796	213.0	4.18	2395	12.6	195.0	3.83	1295	14.9	146.8	2.88	801	16.1	97.8	1.92
50	56	2391	13.5	12.9	13.8	16.6	18.0	1.93	4.2	9.1	0.31	3.10	34.1	106	2.05	0.123	0.114	9.3	0.43	3635	2391	258	74	D	G	0.1001	239.3	4.28	2215	13.5	223.3	3.99	1411	15.5	183.9	3.29	984	16.6	136.5	2.44
55	61	2146	14.5	13.9	14.7	17.5	18.9	2.05	4.4	9.7	0.31	3.48	35.5	105	2.16	0.123	0.114	9.3	0.44	3707	2391	256	75	D	G	0.1224	262.7	4.31	2032	14.4	248.1	4.07	1450	16.1	216.1	3.55	1101	17.1	172.6	2.83
60	66	1935	15.5	14.9	15.5	18.4	19.8	2.16	4.6	10.3	0.30	3.88	36.5	103	2.27	0.124	0.115	9.3	0.46	3754	2391	252	75	D	G	0.1464	283.2	4.29	1860	15.3	269.7	4.09	1438	16.8	243.4	3.69	1161	17.7	204.8	3.11
65	71	1753	16.4	15.8	16.2	19.1	20.6	2.27	4.8	10.9	0.30	4.27	37.2	102	2.39	0.125	0.116	9.2	0.47	3782	2391	248	75	D	G	0.1716	300.9	4.24	1702	16.1	288.4	4.07	1395	17.5	266.4	3.76	1178	18.3	232.5	3.28
70	76	1597	17.4	16.7	16.9	19.8	21.3	2.38	4.9	11.4	0.30	4.66	37.8	101	2.50	0.127	0.118	9.1	0.48	3796	2391	243	74	D	G	0.1981	316.4	4.17	1562	17.0	304.6	4.01	1336	18.1	285.8	3.76	1167	18.9	256.2	3.37
75	81	1461	18.2	17.6	17.5	20.4	21.9	2.48	5.1	11.9	0.30	5.06	38.2	99	2.62	0.128	0.119	8.9	0.49	3799	2391	237	74	D	G	0.2255	329.4	4.07	1437	17.8	318.3	3.93	1268	18.8	301.9	3.73	1136	19.5	275.9	3.41
80	86	1344	19.1	18.4	18.1	20.9	22.5	2.57	5.3	12.3	0.30	5.45	38.4	98	2.73	0.130	0.121	8.8	0.49	3795	2391	232	73	D	G	0.2535	340.7	3.96	1327	18.6	330.1	3.84	1200	19.5	315.6	3.67	1096	20.1	292.8	3.41
85	91	1241	19.9	19.2	18.6	21.5	23.0	2.66	5.4	12.6	0.30	5.85	38.6	97	2.84	0.132	0.123	8.6	0.50	3785	2391	227	73	D	G	0.2821	350.1	3.85	1228	19.4	339.9	3.74	1132	20.1	326.8	3.59	1050	20.7	306.6	3.37
90	96	1152	20.7	20.0	19.1	22.0	23.5	2.75	5.6	13.0	0.30	6.23	38.6	96	2.95	0.134	0.125	8.5	0.50	3772	2391	222	72	D	G	0.3110	358.3	3.73	1143	20.1	348.5	3.63	1068	20.8	336.4	3.51	1004	21.3	318.6	3.32
95	101	1074	21.4	20.7	19.6	22.4	23.9	2.84	5.7	13.3	0.30	6.62	38.7	94	3.05	0.136	0.127	8.4	0.50	3756	2391	217	71	D	G	0.3401	365.3	3.62	1067	20.8	355.8	3.52	1009	21.4	344.5	3.41	957	21.9	328.6	3.26
100	106	1004	22.1	21.4	20.0	22.8	24.4	2.92	5.9	13.6	0.30	6.99	38.6	93	3.16	0.138	0.130	8.2	0.50	3739	2391	213	70	D	G	0.3692	370.7	3.50	999	21.5	361.6	3.41	953	22.1	350.9	3.31	911	22.5	336.6	3.18
105	111	943	22.8	22.1	20.4	23.2	24.7	2.99	6.0	13.8	0.30	7.37	38.6	92	3.26	0.140	0.132	8.1	0.51	3721	2391	208	69	C	G	0.3983	375.6	3.39	939	22.2	366.7	3.31	902	22.7	356.5	3.21	868	23.0	343.5	3.10
110	116	889	23.5	22.8	20.8	23.6	25.1	3.07	6.1	14.0	0.30	7.73	38.5	91	3.35	0.142	0.134	7.9	0.51	3704	2391	204	69	C	G	0.4271	379.7	3.27	886	22.8	371.0	3.20	856	23.3	361.2	3.12	828	23.6	349.4	3.01
115	121	841	24.1	23.4	21.2	23.9	25.4	3.14	6.3	14.2	0.30	8.09	38.4	90	3.45	0.144	0.136	7.8	0.51	3687	2391	200	68	C	G	0.4556	383.2	3.17	839	23.4	374.7	3.10	814	23.8	365.3	3.02	791	24.2	354.5	2.93
120	126	797	24.7	24.0	21.5	24.2	25.7	3.21	6.4	14.4	0.30	8.45	38.3	89	3.54	0.146	0.138	7.7	0.51	3671	2391	197	67	C	G	0.4838	385.6	3.06	795	24.1	377.3	3.00	775	24.4	368.1	2.92	756	24.7	358.2	2.84
125	131	759	25.3	24.6	21.8	24.5	26.0	3.28	6.5	14.6	0.30	8.79	38.2	88	3.63	0.148	0.140	7.6	0.51	3655	2391	193	67	C	G	0.5116	388.3	2.97	758	24.6	380.1	2.90	741	24.9	371.2	2.83	725	25.2	362.0	2.76
130	136	724	25.9	25.2	22.1	24.8	26.3	3.34	6.6	14.7	0.31	9.13	38.1	87	3.72	0.150	0.141	7.5	0.51	3641	2391	190	66	C	G	0.5388	390.1	2.87	723	25.2	382.1	2.81	709	25.5	373.3	2.75	695	25.7	364.8	2.68
135	141	692	26.4	25.7	22.4	25.0	26.5	3.40	6.7	14.8	0.31	9.47	38.0	86	3.80	0.152	0.143	7.4	0.51	3628	2391	187	66	C	G	0.5655	391.3	2.78	691	25.7	383.4	2.72	679	26.0	374.8	2.66	668	26.2	366.9	2.60
140	146	663	27.0	26.2	22.7	25.3	26.8	3.46	6.8	14.9	0.31	9.79	37.9	85	3.88	0.154	0.145	7.3	0.51	3616	2391	184	65	C	G	0.5916	392.2	2.69	662	26.3	384.5	2.63	652	26.5	376.0	2.58	642	26.7	368.6	2.53
145	151	637	27.5	26.7	22.9	25.5	27.0	3.52	6.9	15.0	0.31	10.11	37.8	84	3.96	0.155	0.147	7.2	0.51	3606	2391	182	64	C	G	0.6171	393.1	2.60	637	26.7	385.4	2.55	628	27.0	377.1	2.50	619	27.2	370.1	2.45
150	156	614	28.0	27.2	23.2	25.7	27.2	3.57	7.0	15.1	0.31	10.43	37.8	83	4.04	0.157	0.148	7.1	0.51	3597	2391	179	64	C	G	0.6420	394.2	2.53	614	27.2	386.6	2.48	606	27.4	378.4	2.43	599	27.6	371.8	2.38
155	161	592	28.5	27.7	23.4	25.9	27.4	3.62	7.1	15.2	0.31	10.73	37.6	83	4.11	0.159	0.150	7.1	0.51	3589	2391	177	64	C	G	0.6662	394.4	2.45	592	27.7	386.9	2.40	585	27.9	378.7	2.35	579	28.1	372.6	2.32
160	166	573	28.9	28.1	23.6	26.1	27.6	3.67	7.1	15.2	0.32	11.03	37.6	82	4.18	0.160	0.151	7.0	0.52	3582	2391	175	63	C	G	0.6897	395.2	2.38	573	28.1	387.8	2.34	567	28.3	379.8	2.29	561	28.5	373.8	2.25
165	171	554	29.4	28.6	23.8	26.3	27.8	3.72	7.2	15.3	0.32	11.33	37.5	81	4.25	0.162	0.153	6.9	0.52	3577	2391	173	63	C	G	0.7126	394.8	2.31	554	28.6	387.4	2.27	549	28.8	379.5	2.22	544	28.9	373.9	2.19
170	176	538	29.8	29.0	24.0	26.5	27.9	3.77	7.3	15.3	0.32	11.61	37.5	80	4.31	0.163	0.154	6.9	0.52	3573	2391	171	62	C	G	0.7349	395.4	2.25	538	29.0	388.1	2.21	534	29.2	380.2	2.16	529	29.3	374.8	2.13
175	181	522	30.2	29.4	24.2	26.6	28.1	3.82	7.3	15.3	0.32	11.89	37.4	79	4.38	0.164	0.156	6.8	0.52	3570	2391	169	62	C	G	0.7563	394.8	2.18	522	29.4	387.6	2.14	518	29.6	379.8	2.10	514	29.7	374.6	2.07
180	186	508	30.6	29.8	24.4	26.8	28.2	3.86	7.4	15.4	0.32	12.17	37.4	79	4.44	0.166	0.157	6.8	0.52	3568	2391	168	62	C	G	0.7774	394.9	2.12	508	29.8	387.7	2.09	505	29.9	379.9	2.04	501	30.1	375.0	2.02

Table A95. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
		SI = 18 m Initial Density = 7000 stems/ha																																						
5	11	6841	1.6	1.5	2.4	3.1	3.3	0.71	1.6	0.6	0.72	0.40	1.5	168	1.21	0.389	0.368	1.1	0.02	999	2642	62	27	A	G	0.0002	1.7	0.16	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	6482	3.3	3.1	3.9	5.1	5.5	0.84	2.2	1.5	0.58	0.56	5.5	132	1.24	0.243	0.228	3.0	0.06	1466	2642	117	36	B	G	0.0017	11.0	0.69	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	5984	4.7	4.5	5.4	7.0	7.6	0.97	2.5	2.5	0.49	0.77	10.6	124	1.29	0.184	0.170	4.9	0.12	1962	2642	167	46	B	G	0.0050	30.0	1.43	185	8.2	2.4	0.11	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	5417	6.1	5.8	6.8	8.8	9.6	1.11	2.8	3.6	0.43	1.01	15.9	120	1.36	0.154	0.142	6.4	0.19	2426	2642	206	55	C	G	0.0106	57.2	2.20	1176	8.6	20.8	0.80	5	12.6	0.3	0.01	0	0.0	0.0	0.00
25	31	4839	7.4	7.0	8.2	10.5	11.4	1.25	3.1	4.7	0.39	1.29	20.8	118	1.44	0.137	0.126	7.7	0.25	2826	2642	236	62	C	G	0.0185	89.4	2.89	2175	9.1	54.0	1.75	86	12.9	5.2	0.17	9	14.6	0.6	0.02
30	36	4291	8.6	8.2	9.5	12.0	13.0	1.39	3.3	5.7	0.36	1.59	25.1	115	1.53	0.127	0.117	8.5	0.31	3150	2642	256	68	C	G	0.0288	123.7	3.44	2701	9.8	92.5	2.57	345	13.3	24.4	0.68	79	14.8	6.3	0.18
35	41	3793	9.8	9.3	10.6	13.3	14.5	1.52	3.5	6.6	0.34	1.91	28.7	113	1.62	0.122	0.112	9.2	0.35	3403	2642	268	72	D	G	0.0416	157.7	3.85	2850	10.6	130.9	3.20	718	13.7	59.0	1.44	259	15.1	23.6	0.58
40	46	3353	10.9	10.4	11.7	14.5	15.8	1.65	3.7	7.5	0.33	2.25	31.6	111	1.73	0.119	0.109	9.5	0.39	3592	2642	274	75	D	G	0.0567	190.0	4.14	2786	11.4	166.9	3.63	1069	14.2	101.4	2.21	517	15.5	53.7	1.17
45	51	2971	12.0	11.5	12.7	15.6	17.0	1.77	3.9	8.3	0.32	2.60	33.8	109	1.83	0.118	0.108	9.8	0.42	3728	2642	275	77	D	G	0.0739	219.6	4.31	2623	12.3	199.5	3.92	1321	14.7	144.1	2.83	776	15.9	91.6	1.80
50	56	2642	13.1	12.5	13.6	16.6	18.0	1.89	4.1	9.0	0.31	2.96	35.6	108	1.95	0.117	0.108	9.8	0.45	3823	2642	274	78	D	G	0.0932	246.2	4.40	2423	13.2	228.4	4.08	1466	15.3	183.2	3.27	983	16.4	131.3	2.35
55	61	2361	14.1	13.5	14.5	17.5	18.9	2.01	4.3	9.6	0.30	3.33	36.9	106	2.06	0.118	0.109	9.8	0.46	3885	2642	271	79	D	G	0.1143	269.8	4.43	2220	14.0	253.8	4.16	1524	15.9	217.1	3.56	1123	16.9	169.0	2.77
60	66	2120	15.1	14.5	15.3	18.3	19.8	2.12	4.5	10.2	0.30	3.71	37.9	105	2.17	0.119	0.110	9.8	0.48	3922	2642	266	79	D	G	0.1370	290.4	4.40	2027	14.9	275.8	4.18	1522	16.5	245.8	3.73	1200	17.4	202.8	3.08
65	71	1914	16.0	15.4	16.0	19.0	20.6	2.22	4.6	10.8	0.30	4.09	38.6	103	2.29	0.120	0.111	9.6	0.49	3940	2642	261	78	D	G	0.1610	308.2	4.34	1852	15.7	294.7	4.15	1483	17.1	269.9	3.80	1229	18.0	232.0	3.27
70	76	1737	16.9	16.3	16.6	19.7	21.3	2.33	4.8	11.3	0.30	4.47	39.1	102	2.40	0.122	0.113	9.5	0.50	3945	2642	255	78	D	G	0.1862	323.5	4.26	1694	16.6	310.9	4.09	1422	17.8	289.9	3.82	1224	18.6	256.8	3.38
75	81	1585	17.8	17.2	17.3	20.3	21.9	2.43	5.0	11.8	0.29	4.86	39.4	100	2.51	0.124	0.115	9.3	0.50	3939	2642	249	77	D	G	0.2124	336.7	4.16	1555	17.4	324.8	4.01	1353	18.5	306.7	3.79	1198	19.2	277.8	3.43
80	86	1453	18.6	18.0	17.8	20.9	22.5	2.52	5.1	12.2	0.29	5.24	39.6	99	2.62	0.126	0.117	9.2	0.51	3926	2642	243	76	D	G	0.2393	347.7	4.05	1432	18.2	336.5	3.92	1279	19.1	320.5	3.73	1158	19.7	295.2	3.43
85	91	1339	19.4	18.8	18.4	21.4	23.0	2.61	5.3	12.5	0.29	5.62	39.7	98	2.73	0.128	0.119	9.0	0.51	3909	2642	237	75	D	G	0.2668	357.3	3.93	1323	18.9	346.5	3.81	1208	19.8	332.2	3.65	1112	20.3	309.9	3.41
90	96	1239	20.2	19.5	18.9	21.9	23.5	2.70	5.5	12.9	0.29	6.00	39.7	97	2.84	0.130	0.121	8.8	0.51	3888	2642	232	74	D	G	0.2947	365.1	3.81	1228	19.6	354.8	3.70	1138	20.4	341.7	3.56	1062	20.9	322.0	3.36
95	101	1152	20.9	20.3	19.3	22.3	23.9	2.78	5.6	13.2	0.29	6.37	39.7	95	2.95	0.132	0.123	8.7	0.52	3866	2642	226	73	D	G	0.3227	371.8	3.68	1143	20.4	361.9	3.59	1074	21.0	349.8	3.47	1013	21.5	332.2	3.29
100	106	1075	21.7	21.0	19.8	22.7	24.4	2.86	5.7	13.5	0.30	6.74	39.6	94	3.05	0.134	0.125	8.5	0.52	3842	2642	221	73	D	G	0.3510	377.3	3.56	1069	21.0	367.7	3.47	1014	21.6	356.3	3.36	964	22.1	340.6	3.21
105	111	1008	22.3	21.6	20.2	23.1	24.7	2.94	5.9	13.7	0.30	7.11	39.5	93	3.15	0.136	0.127	8.4	0.52	3819	2642	216	72	D	G	0.3791	382.1	3.44	1003	21.7	372.8	3.36	959	22.2	362.0	3.26	919	22.6	347.9	3.14
110	116	948	23.0	22.3	20.6	23.5	25.1	3.02	6.0	14.0	0.30	7.47	39.4	92	3.25	0.138	0.129	8.2	0.52	3795	2642	212	71	D	G	0.4072	386.0	3.33	944	22.4	376.9	3.25	909	22.8	366.6	3.16	876	23.2	353.8	3.05
115	121	894	23.6	22.9	20.9	23.8	25.4	3.09	6.1	14.2	0.30	7.82	39.2	91	3.34	0.141	0.132	8.1	0.52	3773	2642	207	70	C	G	0.4349	388.8	3.21	891	23.0	380.0	3.14	862	23.4	370.1	3.06	835	23.7	358.4	2.96
120	126	847	24.3	23.5	21.2	24.1	25.7	3.16	6.2	14.3	0.30	8.17	39.1	90	3.44	0.142	0.134	7.9	0.52	3752	2642	203	69	C	G	0.4625	391.7	3.11	845	23.6	383.0	3.04	821	24.0	373.5	2.97	798	24.3	362.7	2.88
125	131	804	24.8	24.1	21.6	24.4	26.0	3.22	6.4	14.5	0.30	8.51	39.0	89	3.53	0.145	0.136	7.8	0.52	3732	2642	199	68	C	G	0.4896	393.6	3.01	802	24.2	385.1	2.94	783	24.5	375.9	2.87	764	24.8	365.9	2.79
130	136	766	25.4	24.7	21.9	24.7	26.3	3.29	6.5	14.6	0.30	8.85	38.9	88	3.61	0.146	0.137	7.7	0.52	3713	2642	196	68	C	G	0.5162	395.4	2.91	765	24.7	387.1	2.85	748	25.0	378.0	2.78	732	25.3	368.8	2.71
135	141	731	26.0	25.2	22.1	24.9	26.5	3.35	6.6	14.8	0.30	9.18	38.7	87	3.70	0.148	0.139	7.6	0.52	3696	2642	193	67	C	G	0.5423	396.4	2.81	730	25.3	388.3	2.75	716	25.5	379.4	2.69	702	25.8	370.9	2.63
140	146	700	26.5	25.7	22.4	25.2	26.8	3.41	6.7	14.9	0.31	9.50	38.6	86	3.78	0.150	0.141	7.5	0.52	3680	2642	190	66	C	G	0.5680	397.6	2.72	699	25.8	389.6	2.67	687	26.0	380.9	2.61	676	26.3	372.9	2.56
145	151	671	27.0	26.3	22.7	25.4	27.0	3.46	6.8	15.0	0.31	9.81	38.4	85	3.86	0.152	0.143	7.4	0.52	3665	2642	187	66	C	G	0.5930	397.9	2.64	670	26.3	390.1	2.58	660	26.5	381.5	2.53	650	26.7	374.0	2.48
150	156	645	27.5	26.7	22.9	25.6	27.2	3.52	6.9	15.0	0.31	10.12	38.3	84	3.94	0.154	0.145	7.3	0.52	3653	2642	184	65	C	G	0.6175	398.3	2.55	645	26.7	390.6	2.50	636	27.0	382.1	2.45	627	27.2	375.1	2.41
155	161	622	28.0	27.2	23.1	25.8	27.4	3.57	6.9	15.1	0.31	10.43	38.2	83	4.01	0.155	0.146	7.2	0.52	3641	2642	182	65	C	G	0.6415	399.0	2.48	622	27.2	391.3	2.43	614	27.4	383.0	2.38	606	27.6	376.3	2.34
160	166	600	28.4	27.7	23.3	26.0	27.6	3.62	7.0	15.2	0.31	10.72	38.1	82	4.08	0.157	0.148	7.1	0.52	3631	2642	179	64	C	G	0.6647	398.8	2.40	600	27.7	391.3	2.36	593	27.9	383.0	2.31	586	28.1	376.7	2.27
165	171	580	28.9	28.1	23.5	26.2	27.8	3.67	7.1	15.2	0.32	11.02	38.0	82	4.15	0.158	0.150	7.1	0.52	3623	2642	177	64	C	G	0.6874	398.7	2.33	580	28.1	391.2	2.29	574	28.3	383.0	2.24	568	28.5	377.0	2.21
170	176	562	29.3	28.5	23.7	26.4	27.9	3.72	7.2	15.3	0.32	11.30	38.0	81	4.22	0.160	0.151	7.0	0.52	3616	2642	175	64	C	G	0.7094	398.7	2.27	562	28.5	391.3	2.22	557	28.7	383.2	2.18	551	28.9	377.5	2.15
175	181	545	29.7	29.0	23.9	26.5	28.1	3.76	7.2	15.3	0.32	11.58	37.9	80	4.28	0.161	0.152	6.9	0.52	3610	2642	173	63	C	G	0.7308	398.3	2.20	545	29.0	390.9	2.16	541	29.1	383.0	2.12	536	29.3	377.5	2.09
180	186	530	30.1	29.4	24.1	26.7	28.2	3.81	7.3	15.3	0.32	11.85	37.8	79	4.34	0.163	0.154	6.9	0.52	3605	2642	171	63	C	G	0.7515	398.3	2.14	530	29.4	391.0	2.10	526	29.5	383.1	2.06	522	29.6	377.9	2.03
		SI = 18 m Initial Density = 7500 stems/ha																																						
5	11	7324	1.6	1.5	2.4	3.1	3.3	0.71	1.6	0.6	0.71	0.40	1.5	171	1.17	0.376	0.356	1.2	0.02	1061	2763	65	29	A	G	0.0002	1.8	0.16	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	6927	3.2	3.0	3.9	5.1	5.5	0.83	2.1	1.5	0.58	0.55	5.6	134	1.20	0.236	0.220	3.1	0.06	1543	2763	122	38	B	G	0.0016	11.3	0.71	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	6378	4.7	4.4	5.4	7.0	7.6	0.97	2.5	2.5	0.49	0.76	10.9	125	1.25	0.178	0.165	5.0	0.13	2051	2763	174	48	B	G	0.0048	30.7	1.47	165	8.2	2.1	0.10	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	5757	6.0	5.7	6.8	8.8	9.6	1.10	2.8	3.6	0.42	0.99	16.3	121	1.32	0.149	0.138	6.7	0.19	2523	2763	215	57	C	G	0.0101	58.3	2.25	1154	8.5	20.0	0.77	4	12.6	0.2	0.01	0	0.0	0.0	0.00
25	31	5127	7.3	6.9	8.1	10.5	11.4	1.24	3.0	4.7	0.38	1.26	21.4	118	1.40	0.133	0.123	7.9	0.26	2926	2763	245	65	C	G	0.0177	91.0	2.94	2209	9.1	53.4	1.73	74	12.9	4.5	0.15	7	14.5	0.5	0.02
30	36	4532	8.5	8.1	9.4	12.0	13.0	1.37	3.2	5.7	0.36	1.55	25.7	116	1.49	0.124	0.114	8.8	0.31	3252	2763	265	70	D	G	0.0277	125.7	3.50	2784	9.8	92.6	2.58	321	13.2	22.5	0.63	68	14.8	5.3	0.15
35	41	3995	9.7	9.2	10.6	13.3	14.5	1.50	3.4	6.6	0.34	1.87	29.3	114	1.58	0.119	0.109	9.4	0.36	3502	2763	276	75	D	G	0.0401	160.1	3.91	2955	10.5	131.7	3.22	695	13.6	56.4	1.38	239	15.1	21.5	0.53
40	46	3522	10.8	10.3	11.6	14.5	15.8	1.63	3.6	7.4	0.32	2.20	32.2	112	1.69	0.116	0.107	9.8	0.40	3687	2763	282	77	D	G	0.0547	192.6	4.19	2897	11.3	168.3	3.66	1060	14.1	99.0	2.15	495	15.5	50.7	1.10
45	51	3113	11.9	11.3	12.6	15.6	17.0	1.75	3.8	8.2	0.31	2.54	34.5	110	1.79	0.115	0.106	10.0	0.43	3820	2763	283	79	D	G	0.0715	222.5	4.37	2729	12.2	201.3	3.95	1329	14.6	142.5	2.80	760	15.9	88.4	1.74
50	56	2763	12.9	12.4	13.5	16.6	18.0	1.87	4.0	8.9	0.31	2.90	36.2	108	1.90	0.115	0.106	10.1	0.45	3910	2763	282	80	D	G	0.0902	249.2	4.45	2522	13.0	230.6	4.12	1487	15.2	182.4	3.26	978	16.3	128.5	2.30
55	61	2464	13.9	13.4	14.4	17.5	18.9	1.99	4.2	9.6	0.30	3.27	37.6	107	2.01	0.115	0.106	10.1	0.47	3967	2763	278	80	D	G	0.1108	272.9	4.48	2309	13.9	256.2	4.20	1555	15.8	217.2	3.56	1129	16.8	166.9	2.74
60	66	2209	14.9	14.3	15.2	18.3	19.8	2.10	4.4	10.2	0.30	3.64	38.5	105	2.13	0.117	0.107	10.0	0.49	3999	2763	273	80	D	G	0.1329	293.5	4.45	2107	14.7	278.3	4.22	1559	16.4	246.6	3.74	1215	17.3	201.4	3.05
65	71	1991	15.8	15.2	15.9	19.0	20.6	2.20	4.6	10.7	0.30	4.01	39.2	104	2.24	0.118	0.109	9.9	0.50	4013	2763	267	80	D	G	0.1564	311.4	4.39	1922	15.6	297.4	4.19	1522	17.0	271.1	3.82	1250	17.9	231.3	3.26
70	76	1805	16.7	16.1	16.6	19.7	21.3	2.31	4.7	11.2	0.29	4.39	39.7	102	2.35	0.120	0.111	9.7	0.51	4013	2763	261	79	D	G	0.1811	326.8	4.30	1758	16.4	313.8	4.13	1463	17.6	291.7	3.84	1249	18.4	256.8	3.38
75	81	1644	17.6	17.0	17.2	20.3	21.9	2.40	4.9	11.7	0.29	4.77	40.0	101	2.47	0.122	0.113	9.5	0.51	4004	2763	254	78	D	G	0.2067	339.8	4.20	1611	17.2	327.5	4.05	1392	18.3	308.6	3.81	1225	19.0	278.2	3.44
80	86	1506	18.4	17.8	17.7	20.8	22.5	2.50	5.1	12.1	0.29	5.15	40.1	99	2.58	0.124	0.115	9.4	0.52	3987	2763	248	78	D	G	0.2331	351.0	4.08	1482	18.0	339.4	3.95	1317	18.9	322.7	3.75	1186	19.6	296.1	3.45
85	91	1386	19.2	18.6	18.3	21.4	23.0	2.59	5.2	12.5	0.29	5.52	40.2	98	2.69	0.126	0.117	9.2	0.52	3966	2763	242	77	D	G	0.2600	360.4	3.96	1369	18.7	349.4	3.84	1243	19.6	334.4	3.68	1140	20.2	311.1	3.42
90	96	1281	20.0	19.3	18.8	21.8	23.5	2.68	5.4	12.8	0.29	5.90	40.2	97	2.79	0.128	0.119	9.0	0.52	3942	2763	236	76	D	G	0.2874	368.1	3.84	1268	19.5	357.6	3.73	1172	20.2	344.1	3.59	1089	20.8	323.4	3.37
95	101	1190	20.7	20.1	19.2	22.3	23.9	2.76	5.5	13.2	0.29	6.27	40.2	96	2.90	0.130	0.121	8.8	0.52	3916	2763	230	75	D	G	0.3150	374.9	3.71	1181	20.2	364.7	3.61	1105	20.8	352.2	3.49	1039	21.3	333.8	3.31
100	106	1110	21.4	20.8	19.7	22.7	24.4	2.84	5.7	13.4	0.29	6.63	40.1	95	3.00	0.132	0.123	8.7	0.52	3890	2763	225	74	D	G	0.3428	380.5	3.59	1103	20.8	370.7	3.50	1043	21.5	358.9	3.39	990	21.9	342.5	3.23
105	111	1039	22.1	21.4	20.1	23.1	24.7	2.92	5.8	13.7	0.30	6.99	40.0	93	3.10	0.134	0.125	8.5	0.52	3864	2763	220	73	D	G	0.3705	385.0	3.47	1034	21.5	375.5	3.38	986	22.1	364.4	3.28	943	22.5	349.6	3.15
110	116	976	22.8	22.1	20.4	23.4	25.1	2.99	5.9	13.9	0.30	7.35	39.8	92	3.20	0.137	0.128	8.3	0.52	3838	2763	215	72	D	G	0.3982	388.6	3.35	972	22.1	379.4	3.27	934	22.6	368.9	3.18	898	23.0	355.4	3.07
115	121	920	23.4	22.7	20.8	23.8	25.4	3.06	6.1	14.1	0.30	7.70	39.6	91	3.30	0.139	0.130	8.2	0.52	3813	2763	211	71	D	G	0.4255	391.5	3.24	917	22.8	382.6	3.16	886	23.2	372.5	3.08	856	23.6	360.2	2.98
120	126	870	24.0	23.3	21.1	24.1	25.7	3.13	6.2	14.3	0.30	8.04	39.5	90	3.39	0.141	0.132	8.1	0.52	3789	2763	206	70	C	G	0.4528	393.9	3.13	868	23.4	385.1	3.06	842	23.8	375.4	2.98	818	24.1	364.2	2.89
125	131	826	24.6	23.9	21.4	24.4	26.0	3.20	6.3	14.5	0.30	8.38	39.3	89	3.48	0.143	0.134	7.9	0.52	3767	2763	202	69	C	G	0.4795	396.1	3.02	824	23.9	387.5	2.96	803	24.3	378.1	2.89	782	24.6	367.7	2.81
130	136	786	25.2	24.5	21.7	24.6	26.3	3.26	6.4	14.6	0.30	8.72	39.2	88	3.57	0.145	0.136	7.8	0.52	3746	2763	199	69	C	G	0.5059	397.6	2.92	784	24.5	389.2	2.86	767	24.8	380.0	2.80	749	25.1	370.5	2.73
135	141	750	25.7	25.0	22.0	24.9	26.5	3.32	6.5	14.7	0.30	9.04	39.0	87	3.65	0.147	0.138	7.7	0.52	3727	2763	195	68	C	G	0.5319	398.9	2.83	749	25.0	390.6	2.77	734	25.3	381.6	2.71	719	25.6	372.7	2.64
140	146	717	26.3	25.5	22.3	25.1	26.8	3.38	6.6	14.8	0.31	9.36	38.9	86	3.73	0.149	0.139	7.6	0.52	3709	2763	192	67	C	G	0.5572	399.5	2.74	716	25.6	391.4	2.68	703	25.8	382.6	2.62	691	26.1	374.4	2.57
145	151	687	26.8	26.0	22.5	25.4	27.0	3.44	6.7	14.9	0.31	9.68	38.7	85	3.82	0.150	0.141	7.5	0.52	3693	2763	189	66	C	G	0.5821	399.9	2.65	686	26.1	391.9	2.60	675	26.3	383.2	2.54	664	26.5	375.5	2.49
150	156	660	27.3	26.5	22.8	25.6	27.2	3.49	6.8	15.0	0.31	9.99	38.6	85	3.89	0.152	0.143	7.4	0.52	3679	2763	186	66	C	G	0.6064	400.2	2.57	659	26.6	392.4	2.52	650	26.8	383.8	2.46	641	27.0	376.6	2.41
155	161	636	27.8	27.0	23.0	25.8	27.4	3.55	6.9	15.1	0.31	10.29	38.5	84	3.97	0.154	0.145	7.3	0.52	3666	2763	184	65	C	G	0.6302	400.8	2.49	636	27.0	393.0	2.44	627	27.2	384.6	2.39	619	27.4	377.7	2.35
160	166	613	28.2	27.5	23.2	26.0	27.6	3.60	7.0	15.1	0.31	10.58	38.4	83	4.04	0.155	0.146	7.2	0.52	3654	2763	181	65	C	G	0.6533	400.5	2.41	613	27.5	392.8	2.37	606	27.7	384.5	2.32	598	27.9	378.0	2.28
165	171	593	28.7	27.9	23.4	26.2	27.8	3.65	7.0	15.2	0.31	10.87	38.3	82	4.11	0.157	0.148	7.2	0.52	3644	2763	179	64	C	G	0.6759	400.8	2.34	593	27.9	393.2	2.30	587	28.1	385.0	2.25	580	28.3	378.8	2.22
170	176	574	29.1	28.3	23.6	26.3	27.9	3.69	7.1	15.2	0.32	11.16	38.2	81	4.17	0.159	0.149	7.1	0.52	3636	2763	177	64	C	G	0.6977	400.5	2.28	574	28.3	393.0	2.23	568	28.5	384.8	2.19	563	28.7	379.0	2.15
175	181	557	29.5	28.7	23.8	26.5	28.1	3.74	7.2	15.3	0.32	11.44	38.1	80	4.24	0.160	0.151	7.0	0.52	3628	2763	175	64	C	G	0.7190	400.5	2.21	557	28.7	393.1	2.17	552	28.9	385.0	2.13	547	29.1	379.4	2.10
180	186	540	29.9	29.2	24.0	26.7	28.2	3.79	7.3	15.3	0.32	11.71	38.0	80	4.30	0.161	0.152	6.9	0.52	3623	2763	173	63	C	G	0.7396	399.4	2.15	540	29.2	392.1	2.11	536	29.3	384.1	2.07	531	29.4	378.7	2.04

Table A96. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 18 m Initial Density = 8000 stems/ha																																								
5	11	7806	1.6	1.5	2.3	3.1	3.3	0.71	1.6	0.6	0.71	0.40	1.5	173	1.13	0.365	0.344	1.2	0.02	1123	2882	68	31	B	G	0.0002	1.8	0.16	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	7371	3.2	3.0	3.8	5.1	5.5	0.83	2.1	1.5	0.57	0.55	5.8	135	1.16	0.229	0.213	3.3	0.07	1618	2882	128	40	B	G	0.0016	11.5	0.72	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	6771	4.6	4.3	5.3	7.0	7.6	0.96	2.5	2.5	0.48	0.74	11.2	126	1.22	0.173	0.160	5.2	0.13	2138	2882	181	50	C	G	0.0046	31.3	1.49	147	8.2	1.8	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	6094	5.9	5.6	6.8	8.8	9.6	1.09	2.7	3.6	0.42	0.98	16.7	122	1.28	0.145	0.134	6.9	0.20	2617	2882	223	59	C	G	0.0097	59.4	2.29	1129	8.5	19.1	0.74	3	12.5	0.1	0.00	0	0.0	0.0	0.00
25	31	5412	7.2	6.8	8.1	10.5	11.4	1.23	3.0	4.7	0.38	1.24	21.9	119	1.36	0.130	0.119	8.2	0.27	3024	2882	253	67	C	G	0.0171	92.5	2.99	2237	9.0	52.7	1.70	64	12.9	3.8	0.12	6	14.4	0.4	0.01
30	36	4770	8.4	7.9	9.4	11.9	13.0	1.36	3.2	5.7	0.35	1.52	26.3	117	1.45	0.121	0.111	9.1	0.32	3349	2882	273	73	D	G	0.0268	127.6	3.55	2859	9.7	92.5	2.57	298	13.2	20.7	0.58	59	14.8	4.6	0.13
35	41	4194	9.5	9.1	10.5	13.3	14.5	1.49	3.4	6.6	0.33	1.83	30.0	114	1.54	0.116	0.107	9.7	0.37	3597	2882	285	77	D	G	0.0387	162.4	3.97	3056	10.4	132.4	3.23	672	13.6	53.9	1.32	220	15.0	19.6	0.48
40	46	3689	10.7	10.2	11.6	14.5	15.8	1.61	3.6	7.4	0.32	2.16	32.9	112	1.65	0.114	0.104	10.1	0.41	3779	2882	290	80	D	G	0.0529	195.2	4.25	3004	11.2	169.6	3.69	1048	14.0	96.6	2.10	473	15.4	47.9	1.04
45	51	3253	11.7	11.2	12.6	15.6	17.0	1.74	3.8	8.2	0.31	2.49	35.1	110	1.75	0.113	0.103	10.3	0.44	3907	2882	291	81	D	G	0.0692	225.1	4.42	2833	12.0	203.0	3.98	1333	14.5	140.7	2.76	744	15.8	85.3	1.67
50	56	2882	12.8	12.2	13.5	16.5	18.0	1.85	4.0	8.9	0.30	2.84	36.9	109	1.86	0.113	0.103	10.3	0.46	3992	2882	289	82	D	G	0.0875	252.1	4.51	2618	12.9	232.6	4.16	1506	15.1	181.5	3.24	972	16.2	125.7	2.25
55	61	2565	13.8	13.2	14.3	17.4	18.9	1.97	4.1	9.5	0.30	3.20	38.2	107	1.97	0.113	0.104	10.3	0.48	4045	2882	285	82	D	G	0.1075	275.7	4.52	2395	13.7	258.4	4.24	1583	15.7	217.0	3.56	1133	16.7	164.7	2.70
60	66	2296	14.7	14.1	15.1	18.2	19.8	2.08	4.3	10.1	0.30	3.57	39.1	105	2.09	0.114	0.105	10.2	0.49	4073	2882	279	82	D	G	0.1291	296.4	4.49	2184	14.6	280.7	4.26	1593	16.3	247.1	3.75	1227	17.2	199.9	3.03
65	71	2067	15.7	15.0	15.8	19.0	20.6	2.18	4.5	10.7	0.29	3.94	39.8	104	2.20	0.116	0.107	10.1	0.51	4082	2882	273	81	D	G	0.1521	314.4	4.43	1992	15.4	299.9	4.23	1559	16.9	272.2	3.84	1269	17.8	230.6	3.25
70	76	1870	16.5	15.9	16.5	19.6	21.3	2.28	4.7	11.2	0.29	4.31	40.2	103	2.31	0.118	0.109	9.9	0.51	4078	2882	266	81	D	G	0.1762	329.5	4.34	1818	16.2	316.1	4.16	1500	17.5	292.9	3.86	1272	18.3	256.5	3.38
75	81	1702	17.4	16.8	17.1	20.2	21.9	2.38	4.9	11.7	0.29	4.68	40.5	101	2.42	0.120	0.111	9.7	0.52	4065	2882	260	80	D	G	0.2014	342.7	4.23	1666	17.0	330.1	4.08	1429	18.1	310.2	3.83	1250	18.9	278.4	3.44
80	86	1557	18.2	17.6	17.6	20.8	22.5	2.48	5.0	12.1	0.29	5.06	40.6	100	2.53	0.122	0.113	9.5	0.52	4045	2882	253	79	D	G	0.2272	353.8	4.12	1531	17.8	341.9	3.98	1353	18.8	324.5	3.78	1212	19.5	296.7	3.45
85	91	1431	19.0	18.4	18.2	21.3	23.0	2.57	5.2	12.4	0.29	5.43	40.7	99	2.64	0.124	0.115	9.3	0.52	4020	2882	246	78	D	G	0.2537	363.0	3.99	1412	18.5	351.8	3.87	1276	19.4	336.2	3.70	1166	20.0	311.9	3.43
90	96	1322	19.8	19.1	18.7	21.8	23.5	2.65	5.3	12.8	0.29	5.80	40.7	97	2.75	0.126	0.117	9.1	0.53	3993	2882	240	77	D	G	0.2806	371.0	3.87	1308	19.3	360.2	3.75	1204	20.0	346.2	3.61	1116	20.6	324.6	3.38
95	101	1227	20.5	19.9	19.1	22.2	23.9	2.74	5.5	13.1	0.29	6.16	40.6	96	2.85	0.128	0.119	9.0	0.53	3965	2882	234	76	D	G	0.3078	377.7	3.74	1217	20.0	367.3	3.64	1135	20.7	354.4	3.51	1065	21.2	335.2	3.32
100	106	1143	21.2	20.6	19.6	22.7	24.4	2.82	5.6	13.4	0.29	6.53	40.5	95	2.96	0.131	0.121	8.8	0.53	3935	2882	229	75	D	G	0.3351	383.0	3.62	1135	20.7	373.1	3.52	1071	21.3	361.0	3.41	1014	21.7	343.9	3.25
105	111	1069	21.9	21.2	20.0	23.0	24.7	2.89	5.8	13.6	0.29	6.88	40.4	94	3.06	0.133	0.124	8.6	0.53	3906	2882	223	74	D	G	0.3625	387.5	3.49	1063	21.3	377.8	3.41	1012	21.9	366.5	3.30	966	22.3	351.1	3.16
110	116	1004	22.6	21.9	20.3	23.4	25.1	2.97	5.9	13.9	0.29	7.24	40.2	93	3.16	0.135	0.126	8.5	0.53	3878	2882	219	73	D	G	0.3897	391.3	3.37	999	22.0	381.9	3.29	958	22.5	371.1	3.20	920	22.8	357.2	3.08
115	121	945	23.2	22.5	20.7	23.7	25.4	3.04	6.0	14.1	0.30	7.58	40.0	92	3.25	0.137	0.128	8.3	0.53	3851	2882	214	72	D	G	0.4168	393.9	3.26	941	22.6	384.8	3.18	908	23.0	374.5	3.10	877	23.4	361.8	2.99
120	126	894	23.8	23.1	21.0	24.0	25.7	3.11	6.1	14.3	0.30	7.93	39.9	91	3.34	0.139	0.130	8.2	0.53	3825	2882	209	71	D	G	0.4436	396.6	3.15	891	23.2	387.7	3.08	864	23.6	377.8	3.00	838	23.9	366.2	2.91
125	131	847	24.4	23.7	21.3	24.3	26.0	3.17	6.2	14.4	0.30	8.26	39.7	90	3.44	0.141	0.132	8.0	0.53	3801	2882	205	70	C	G	0.4701	398.2	3.04	845	23.7	389.5	2.97	822	24.1	379.9	2.90	800	24.4	369.2	2.82
130	136	806	25.0	24.3	21.6	24.6	26.3	3.24	6.4	14.6	0.30	8.59	39.5	89	3.52	0.143	0.134	7.9	0.53	3778	2882	202	69	C	G	0.4963	400.0	2.94	804	24.3	391.5	2.88	785	24.6	382.1	2.81	767	24.9	372.2	2.74
135	141	768	25.5	24.8	21.9	24.9	26.5	3.30	6.5	14.7	0.30	8.92	39.3	88	3.61	0.145	0.136	7.8	0.53	3757	2882	198	68	C	G	0.5219	400.8	2.84	767	24.8	392.5	2.78	751	25.1	383.4	2.72	735	25.4	374.2	2.65
140	146	734	26.1	25.3	22.2	25.1	26.8	3.36	6.6	14.8	0.30	9.24	39.2	87	3.69	0.147	0.138	7.7	0.53	3737	2882	194	68	C	G	0.5471	401.6	2.75	733	25.3	393.4	2.70	719	25.6	384.4	2.63	706	25.9	375.9	2.58
145	151	703	26.6	25.8	22.4	25.3	27.0	3.41	6.7	14.9	0.31	9.55	39.0	86	3.77	0.149	0.140	7.6	0.52	3719	2882	191	67	C	G	0.5718	402.0	2.66	702	25.9	393.9	2.61	691	26.1	385.1	2.55	679	26.3	377.1	2.50
150	156	675	27.1	26.3	22.7	25.5	27.2	3.47	6.7	15.0	0.31	9.86	38.9	85	3.85	0.151	0.141	7.5	0.52	3703	2882	188	67	C	G	0.5959	402.2	2.58	674	26.3	394.3	2.53	664	26.6	385.6	2.47	654	26.8	378.1	2.42
155	161	650	27.6	26.8	22.9	25.7	27.4	3.52	6.8	15.1	0.31	10.16	38.8	84	3.92	0.152	0.143	7.4	0.52	3689	2882	186	66	C	G	0.6195	402.7	2.50	650	26.8	394.8	2.45	641	27.0	386.3	2.40	632	27.2	379.2	2.36
160	166	626	28.0	27.3	23.1	25.9	27.6	3.57	6.9	15.1	0.31	10.45	38.6	83	4.00	0.154	0.145	7.3	0.52	3676	2882	183	65	C	G	0.6425	402.2	2.42	626	27.3	394.4	2.38	618	27.5	386.0	2.33	610	27.7	379.3	2.29
165	171	605	28.5	27.7	23.3	26.1	27.8	3.62	7.0	15.2	0.31	10.74	38.5	82	4.07	0.156	0.146	7.2	0.52	3665	2882	181	65	C	G	0.6650	402.3	2.35	605	27.7	394.6	2.31	598	27.9	386.3	2.26	591	28.1	379.9	2.22
170	176	585	28.9	28.1	23.5	26.3	27.9	3.67	7.1	15.2	0.31	11.02	38.4	81	4.13	0.157	0.148	7.1	0.52	3655	2882	179	64	C	G	0.6867	401.7	2.28	585	28.1	394.1	2.24	579	28.3	385.9	2.19	573	28.5	379.9	2.16
175	181	567	29.3	28.5	23.7	26.5	28.1	3.72	7.1	15.2	0.32	11.30	38.3	81	4.20	0.159	0.150	7.1	0.52	3646	2882	177	64	C	G	0.7079	401.4	2.22	567	28.5	393.9	2.18	562	28.7	385.8	2.13	556	28.9	380.0	2.10
180	186	551	29.7	28.9	23.9	26.6	28.2	3.76	7.2	15.3	0.32	11.57	38.3	80	4.26	0.160	0.151	7.0	0.52	3639	2882	175	64	C	G	0.7285	401.4	2.16	551	28.9	394.0	2.12	546	29.1	385.9	2.08	541	29.3	380.4	2.05
SI = 18 m Initial Density = 9000 stems/ha																																								
5	11	8771	1.5	1.4	2.3	3.1	3.3	0.71	1.5	0.6	0.70	0.39	1.6	178	1.07	0.344	0.325	1.3	0.02	1244	3112	74	34	B	G	0.0002	1.9	0.17	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	8255	3.1	2.9	3.8	5.1	5.5	0.82	2.0	1.5	0.57	0.53	6.1	138	1.10	0.216	0.202	3.5	0.07	1766	3112	138	44	B	G	0.0014	11.9	0.75	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	7550	4.4	4.2	5.3	7.0	7.6	0.95	2.4	2.5	0.47	0.72	11.7	128	1.15	0.164	0.152	5.6	0.14	2307	3112	194	54	C	G	0.0043	32.4	1.55	115	8.1	1.4	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	6761	5.7	5.4	6.7	8.8	9.6	1.08	2.6	3.6	0.41	0.94	17.5	124	1.22	0.138	0.127	7.3	0.21	2798	3112	239	64	C	G	0.0091	61.3	2.36	1073	8.4	17.6	0.68	2	12.3	0.1	0.00	0	0.0	0.0	0.00
25	31	5972	7.0	6.6	8.0	10.4	11.4	1.21	2.9	4.6	0.37	1.19	22.8	121	1.29	0.124	0.114	8.6	0.28	3210	3112	270	71	D	G	0.0160	95.3	3.08	2275	8.9	51.3	1.66	48	12.8	2.8	0.09	4	14.3	0.3	0.01
30	36	5237	8.2	7.7	9.2	11.9	13.0	1.34	3.1	5.6	0.35	1.47	27.4	118	1.38	0.116	0.106	9.6	0.34	3534	3112	290	77	D	G	0.0250	131.1	3.65	2992	9.5	92.2	2.57	256	13.1	17.5	0.49	44	14.7	3.4	0.09
35	41	4582	9.3	8.8	10.4	13.2	14.5	1.46	3.3	6.5	0.33	1.76	31.1	115	1.48	0.111	0.102	10.2	0.39	3777	3112	301	81	D	G	0.0363	166.4	4.06	3240	10.2	133.2	3.25	624	13.5	49.1	1.20	186	15.0	16.3	0.40
40	46	4013	10.4	9.9	11.4	14.4	15.8	1.59	3.5	7.3	0.32	2.08	34.0	113	1.58	0.109	0.100	10.6	0.43	3951	3112	306	83	D	G	0.0497	199.6	4.34	3204	11.0	171.5	3.73	1019	13.9	91.7	2.00	430	15.3	42.7	0.93
45	51	3526	11.5	10.9	12.4	15.5	17.0	1.71	3.7	8.1	0.31	2.40	36.3	111	1.68	0.108	0.099	10.7	0.46	4071	3112	306	85	D	G	0.0652	229.9	4.51	3029	11.8	205.8	4.04	1334	14.4	136.9	2.69	709	15.7	79.3	1.56
50	56	3112	12.5	11.9	13.3	16.5	18.0	1.82	3.9	8.8	0.30	2.74	38.0	110	1.79	0.109	0.100	10.8	0.48	4147	3112	302	85	D	G	0.0826	257.0	4.59	2800	12.6	235.9	4.22	1534	14.9	179.2	3.20	954	16.1	120.0	2.15
55	61	2762	13.5	12.9	14.2	17.4	18.9	1.93	4.0	9.5	0.30	3.09	39.3	108	1.90	0.109	0.100	10.7	0.50	4191	3112	297	85	D	G	0.1017	280.9	4.61	2562	13.5	262.2	4.30	1631	15.5	216.1	3.55	1134	16.6	160.0	2.63
60	66	2465	14.4	13.8	14.9	18.2	19.8	2.04	4.2	10.0	0.29	3.45	40.2	106	2.01	0.111	0.102	10.6	0.51	4210	3112	291	85	D	G	0.1224	301.6	4.57	2333	14.3	284.8	4.32	1654	16.0	247.5	3.75	1246	17.1	196.5	2.98
65	71	2213	15.3	14.7	15.6	18.9	20.6	2.15	4.4	10.6	0.29	3.81	40.8	105	2.13	0.112	0.103	10.4	0.52	4212	3112	284	84	D	G	0.1444	319.5	4.50	2124	15.1	304.1	4.29	1626	16.7	273.5	3.86	1301	17.6	228.4	3.22
70	76	1998	16.2	15.6	16.3	19.6	21.3	2.25	4.6	11.1	0.29	4.17	41.2	103	2.24	0.114	0.105	10.2	0.53	4200	3112	277	83	D	G	0.1676	334.8	4.41	1937	15.9	320.6	4.22	1570	17.3	295.1	3.89	1312	18.1	255.5	3.36
75	81	1814	17.1	16.4	16.9	20.2	21.9	2.34	4.7	11.6	0.29	4.53	41.5	102	2.35	0.116	0.107	10.0	0.53	4180	3112	269	82	D	G	0.1917	347.8	4.30	1771	16.7	334.6	4.13	1498	17.9	312.9	3.87	1295	18.7	278.3	3.44
80	86	1656	17.9	17.2	17.5	20.8	22.5	2.44	4.9	12.0	0.29	4.90	41.6	101	2.46	0.118	0.109	9.8	0.53	4153	3112	262	81	D	G	0.2167	358.8	4.17	1626	17.5	346.4	4.03	1420	18.5	327.6	3.81	1260	19.2	297.3	3.46
85	91	1520	18.7	18.0	18.0	21.3	23.0	2.53	5.1	12.4	0.29	5.26	41.6	99	2.56	0.121	0.111	9.6	0.54	4122	3112	255	80	D	G	0.2422	368.2	4.05	1498	18.2	356.4	3.92	1341	19.1	339.8	3.74	1215	19.8	313.3	3.44
90	96	1401	19.4	18.8	18.5	21.7	23.5	2.61	5.2	12.7	0.29	5.62	41.5	98	2.67	0.123	0.114	9.4	0.54	4089	3112	248	79	D	G	0.2683	375.9	3.92	1385	18.9	364.7	3.80	1264	19.7	349.7	3.64	1164	20.3	326.3	3.40
95	101	1298	20.2	19.5	18.9	22.2	23.9	2.69	5.4	13.0	0.29	5.98	41.4	97	2.78	0.125	0.116	9.2	0.54	4055	3112	242	78	D	G	0.2947	382.5	3.79	1286	19.6	371.7	3.68	1192	20.4	358.0	3.55	1112	20.9	337.3	3.34
100	106	1207	20.9	20.2	19.4	22.6	24.4	2.77	5.5	13.3	0.29	6.33	41.3	96	2.88	0.127	0.118	9.0	0.54	4020	3112	236	76	D	G	0.3212	387.7	3.66	1198	20.3	377.3	3.56	1124	21.0	364.6	3.44	1059	21.4	346.1	3.27
105	111	1127	21.5	20.9	19.8	23.0	24.7	2.85	5.7	13.6	0.29	6.69	41.1	95	2.98	0.130	0.120	8.9	0.54	3986	3112	230	75	D	G	0.3478	392.0	3.53	1120	20.9	382.0	3.44	1061	21.5	370.1	3.34	1008	22.0	353.4	3.19
110	116	1057	22.2	21.5	20.1	23.3	25.1	2.92	5.8	13.8	0.29	7.03	40.9	93	3.08	0.132	0.123	8.7	0.54	3953	3112	225	74	D	G	0.3744	395.7	3.41	1052	21.6	386.0	3.33	1004	22.1	374.7	3.23	961	22.5	359.8	3.10
115	121	994	22.8	22.1	20.5	23.7	25.4	3.00	5.9	14.0	0.29	7.37	40.7	92	3.17	0.134	0.125	8.5	0.54	3922	3112	220	73	D	G	0.4008	398.4	3.29	990	22.2	389.0	3.22	951	22.7	378.2	3.13	916	23.0	364.6	3.01
120	126	938	23.4	22.7	20.8	24.0	25.7	3.06	6.0	14.2	0.30	7.71	40.5	91	3.27	0.136	0.127	8.4	0.53	3892	3112	215	72	D	G	0.4270	400.5	3.18	935	22.8	391.4	3.11	903	23.2	381.0	3.03	873	23.6	368.6	2.93
125	131	889	24.0	23.3	21.1	24.3	26.0	3.13	6.1	14.3	0.30	8.04	40.3	90	3.35	0.138	0.129	8.2	0.53	3864	3112	211	71	D	G	0.4529	402.6	3.07	886	23.4	393.7	3.01	860	23.8	383.7	2.93	835	24.1	372.3	2.84
130	136	844	24.6	23.9	21.4	24.5	26.3	3.19	6.3	14.5	0.30	8.37	40.1	89	3.44	0.140	0.131	8.1	0.53	3837	3112	207	71	D	G	0.4786	403.9	2.97	842	23.9	395.1	2.91	820	24.3	385.5	2.84	799	24.6	374.9	2.76
135	141	803	25.1	24.4	21.7	24.8	26.5	3.25	6.4	14.6	0.30	8.69	39.9	88	3.53	0.142	0.133	8.0	0.53	3812	3112	203	70	C	G	0.5036	404.4	2.87	801	24.5	395.9	2.81	783	24.8	386.5	2.74	765	25.1	376.7	2.67
140	146	767	25.7	24.9	22.0	25.0	26.8	3.31	6.5	14.7	0.30	9.00	39.7	87	3.61	0.144	0.135	7.8	0.53	3790	3112	199	69	C	G	0.5284	405.3	2.78	766	25.0	396.9	2.72	750	25.3	387.7	2.66	735	25.5	378.7	2.59
145	151	734	26.2	25.4	22.2	25.3	27.0	3.37	6.6	14.8	0.30	9.31	39.5	86	3.69	0.146	0.137	7.7	0.53	3769	3112	196	68	C	G	0.5527	405.7	2.69	733	25.5	397.4	2.63	720	25.7	388.5	2.57	706	26.0	379.9	2.52
150	156	704	26.7	25.9	22.4	25.5	27.2	3.43	6.7	14.9	0.31	9.61	39.4	85	3.77	0.148	0.139	7.6	0.53	3750	3112	193	68	C	G	0.5764	405.8	2.60	703	26.0	397.7	2.55	692	26.2	388.9	2.49	680	26.4	380.9	2.44
155	161	676	27.2	26.4	22.7	25.7	27.4	3.48	6.7	15.0	0.31	9.91	39.2	85	3.85	0.150	0.140	7.5	0.53	3732	3112	190	67	C	G	0.5997	405.4	2.52	675	26.4	397.4	2.47	665	26.7	388.7	2.42	655	26.9	381.2	2.37
160	166	651	27.6	26.9	22.9	25.9	27.6	3.53	6.8	15.0	0.31	10.20	39.0	84	3.92	0.152	0.142	7.4	0.53	3717	3112	187	66	C	G	0.6224	405.2	2.44	651	26.9	397.3	2.39	642	27.1	388.8	2.34	633	27.3	381.7	2.30
165	171	629	28.1	27.3	23.1	26.0	27.8	3.58	6.9	15.1	0.31	10.49	38.9	83	3.99	0.153	0.144	7.3	0.53	3703	3112	185	66	C	G	0.6447	405.5	2.37	629	27.3	397.7	2.33	621	27.5	389.2	2.28	613	27.7	382.5	2.24
170	176	608	28.5	27.7	23.3	26.2	27.9	3.63	7.0	15.1	0.31	10.77	38.8	82	4.06	0.155	0.145	7.2	0.53	3690	3112	182	65	C	G	0.6661	405.0	2.30	608	27.7	397.3	2.26	601	27.9	389.0	2.21	594	28.1	382.6	2.17
175	181	588	28.9	28.2	23.5	26.4	28.1	3.68	7.1	15.2	0.31	11.05	38.7	81	4.12	0.156	0.147	7.2	0.53	3680	3112	180	65	C	G	0.6871	404.0	2.23	588	28.2	396.4	2.19	582	28.3	388.2	2.15	576	28.5	382.1	2.11
180	186	570	29.3	28.6	23.6	26.5	28.2	3.72	7.1	15.2	0.32	11.32	38.6	80	4.19	0.158	0.148	7.1	0.53	3670	3112	178	65	C	G	0.7075	403.3	2.17	570	28.6	395.8	2.13	565	28.7	387.6	2.08	559	28.9	381.8	2.05

Table A97. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume) N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	Util. std. = 8/6 N	D	V/ha	Mai	Util. std. = 13/7 N	D	V/ha	Mai	Util. std = 15/10 N	D	V/ha	Mai
SI = 18 m Initial Density = 10000 stems/ha																																								
5	11	9734	1.5	1.4	2.3	3.1	3.3	0.70	1.5	0.6	0.70	0.39	1.7	182	1.01	0.327	0.308	1.4	0.02	1364	3335	80	38	B	G	0.0002	1.9	0.17	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	9136	3.0	2.8	3.8	5.1	5.5	0.81	2.0	1.5	0.56	0.52	6.4	140	1.05	0.206	0.192	3.7	0.07	1911	3335	148	48	B	G	0.0013	12.3	0.77	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	8322	4.3	4.1	5.2	7.0	7.6	0.93	2.3	2.5	0.47	0.70	12.2	130	1.10	0.157	0.144	5.9	0.15	2469	3335	207	59	C	G	0.0040	33.3	1.59	90	8.1	1.1	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	7417	5.6	5.3	6.6	8.8	9.6	1.06	2.6	3.6	0.41	0.92	18.2	125	1.16	0.132	0.121	7.7	0.22	2971	3335	253	68	C	G	0.0085	63.0	2.43	1012	8.4	16.0	0.62	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	31	6521	6.8	6.4	7.9	10.4	11.4	1.19	2.8	4.6	0.37	1.16	23.7	122	1.24	0.119	0.109	9.1	0.29	3386	3335	285	75	D	G	0.0150	97.7	3.16	2293	8.8	49.7	1.61	36	12.8	2.1	0.07	2	14.3	0.1	0.00
30	36	5693	8.0	7.5	9.2	11.9	13.0	1.31	3.0	5.6	0.34	1.42	28.3	119	1.33	0.111	0.102	10.0	0.35	3707	3335	305	81	D	G	0.0236	134.1	3.73	3104	9.4	91.5	2.55	219	13.0	14.8	0.41	33	14.6	2.5	0.07
35	41	4960	9.1	8.6	10.3	13.2	14.5	1.44	3.2	6.4	0.33	1.71	32.1	116	1.42	0.107	0.098	10.7	0.40	3944	3335	316	85	D	G	0.0343	169.9	4.15	3405	10.1	133.6	3.26	576	13.4	44.5	1.09	157	14.9	13.6	0.33
40	46	4328	10.2	9.7	11.3	14.4	15.8	1.56	3.4	7.3	0.31	2.01	35.1	114	1.52	0.105	0.096	11.0	0.44	4111	3335	320	87	D	G	0.0470	203.5	4.43	3389	10.8	172.9	3.76	985	13.8	86.7	1.89	390	15.2	38.0	0.83
45	51	3790	11.2	10.7	12.3	15.5	17.0	1.68	3.6	8.0	0.30	2.33	37.4	112	1.62	0.105	0.096	11.2	0.47	4223	3335	319	88	D	G	0.0617	234.0	4.59	3213	11.6	207.9	4.08	1326	14.3	132.8	2.61	671	15.6	73.5	1.44
50	56	3335	12.2	11.7	13.2	16.5	18.0	1.79	3.8	8.7	0.30	2.66	39.1	110	1.73	0.105	0.096	11.2	0.49	4290	3335	315	89	D	G	0.0784	261.3	4.67	2973	12.4	238.7	4.27	1552	14.8	176.3	3.15	931	16.0	114.3	2.04
55	61	2952	13.2	12.6	14.0	17.3	18.9	1.90	4.0	9.4	0.29	2.99	40.3	109	1.84	0.106	0.097	11.1	0.51	4326	3335	309	88	D	G	0.0966	285.3	4.68	2719	13.2	265.3	4.35	1670	15.3	214.7	3.52	1130	16.4	155.2	2.55
60	66	2628	14.1	13.6	14.8	18.1	19.8	2.01	4.1	10.0	0.29	3.34	41.2	107	1.95	0.108	0.099	11.0	0.52	4337	3335	302	88	D	G	0.1165	306.1	4.64	2475	14.0	288.2	4.37	1706	15.9	247.2	3.75	1258	16.9	192.8	2.92
65	71	2354	15.0	14.4	15.5	18.9	20.6	2.11	4.3	10.5	0.29	3.69	41.8	105	2.06	0.109	0.100	10.8	0.53	4331	3335	294	87	D	G	0.1376	324.0	4.57	2251	14.8	307.8	4.34	1686	16.4	274.2	3.87	1325	17.4	225.7	3.18
70	76	2121	15.9	15.3	16.1	19.5	21.3	2.21	4.5	11.0	0.29	4.04	42.1	104	2.17	0.111	0.102	10.6	0.54	4312	3335	286	86	D	G	0.1600	339.3	4.47	2050	15.6	324.3	4.27	1633	17.0	296.6	3.91	1346	17.9	253.9	3.34
75	81	1923	16.7	16.1	16.7	20.1	21.9	2.31	4.7	11.5	0.29	4.40	42.4	103	2.28	0.113	0.104	10.4	0.54	4285	3335	278	85	D	G	0.1833	352.5	4.35	1873	16.4	338.6	4.18	1562	17.7	315.0	3.89	1336	18.4	277.8	3.43
80	86	1752	17.6	16.9	17.3	20.7	22.5	2.40	4.8	11.9	0.29	4.75	42.4	101	2.39	0.115	0.106	10.1	0.55	4252	3335	271	83	D	G	0.2074	363.4	4.23	1717	17.2	350.3	4.08	1482	18.3	330.0	3.84	1304	19.0	297.5	3.46
85	91	1605	18.3	17.7	17.8	21.2	23.0	2.49	5.0	12.3	0.29	5.11	42.4	100	2.50	0.118	0.108	9.9	0.55	4215	3335	263	82	D	G	0.2321	372.6	4.10	1579	17.9	360.3	3.96	1401	18.9	342.5	3.77	1259	19.5	313.9	3.45
90	96	1477	19.1	18.4	18.3	21.7	23.5	2.57	5.1	12.6	0.29	5.46	42.3	99	2.60	0.120	0.111	9.7	0.55	4177	3335	256	81	D	G	0.2574	380.2	3.96	1458	18.6	368.5	3.84	1321	19.5	352.6	3.68	1208	20.1	327.4	3.41
95	101	1366	19.8	19.2	18.7	22.1	23.9	2.66	5.3	12.9	0.29	5.81	42.2	98	2.71	0.122	0.113	9.5	0.55	4138	3335	249	79	D	G	0.2829	386.5	3.83	1352	19.3	375.4	3.72	1245	20.1	360.9	3.58	1155	20.6	338.7	3.36
100	106	1269	20.5	19.8	19.2	22.5	24.4	2.74	5.4	13.2	0.29	6.16	42.0	96	2.81	0.125	0.115	9.3	0.55	4098	3335	242	78	D	G	0.3087	391.8	3.70	1258	20.0	381.1	3.60	1174	20.7	367.8	3.47	1101	21.2	347.9	3.28
105	111	1184	21.2	20.5	19.6	22.9	24.7	2.81	5.6	13.5	0.29	6.51	41.8	95	2.91	0.127	0.117	9.1	0.55	4060	3335	236	77	D	G	0.3347	396.3	3.57	1176	20.6	385.9	3.48	1109	21.2	373.5	3.37	1049	21.7	355.7	3.21
110	116	1108	21.9	21.2	19.9	23.3	25.1	2.89	5.7	13.7	0.29	6.85	41.5	94	3.00	0.129	0.120	8.9	0.54	4023	3335	231	76	D	G	0.3606	399.5	3.45	1102	21.2	389.5	3.36	1048	21.8	377.8	3.26	999	22.2	361.8	3.12
115	121	1041	22.5	21.8	20.3	23.6	25.4	2.96	5.8	13.9	0.29	7.18	41.3	93	3.10	0.131	0.122	8.7	0.54	3987	3335	225	75	D	G	0.3864	402.2	3.33	1036	21.9	392.6	3.25	992	22.4	381.4	3.15	952	22.8	366.9	3.03
120	126	982	23.1	22.4	20.6	23.9	25.7	3.02	5.9	14.1	0.29	7.51	41.1	92	3.19	0.134	0.124	8.6	0.54	3954	3335	220	74	D	G	0.4120	404.6	3.21	978	22.4	395.2	3.14	942	22.9	384.5	3.05	909	23.3	371.3	2.95
125	131	928	23.7	23.0	20.9	24.2	26.0	3.09	6.1	14.3	0.29	7.84	40.8	91	3.28	0.136	0.126	8.4	0.54	3922	3335	215	73	D	G	0.4374	405.9	3.10	925	23.0	396.7	3.03	895	23.4	386.5	2.95	867	23.8	374.3	2.86
130	136	880	24.2	23.5	21.2	24.5	26.3	3.15	6.2	14.4	0.30	8.16	40.6	90	3.37	0.138	0.128	8.2	0.54	3892	3335	211	72	D	G	0.4625	407.0	2.99	878	23.6	398.0	2.93	853	23.9	388.1	2.85	829	24.3	376.9	2.77
135	141	837	24.8	24.1	21.5	24.7	26.5	3.21	6.3	14.5	0.30	8.48	40.4	89	3.46	0.140	0.130	8.1	0.54	3864	3335	207	71	D	G	0.4872	407.8	2.89	835	24.1	399.0	2.83	814	24.5	389.4	2.76	794	24.7	379.0	2.69
140	146	798	25.3	24.6	21.8	25.0	26.8	3.27	6.4	14.7	0.30	8.79	40.2	88	3.54	0.142	0.132	8.0	0.54	3838	3335	203	70	D	G	0.5115	408.2	2.80	796	24.6	399.6	2.74	779	24.9	390.2	2.67	762	25.2	380.6	2.61
145	151	763	25.8	25.1	22.0	25.2	27.0	3.33	6.5	14.8	0.30	9.09	40.0	87	3.62	0.144	0.134	7.9	0.54	3814	3335	200	69	C	G	0.5354	408.5	2.71	762	25.1	400.1	2.65	747	25.4	390.9	2.59	732	25.7	381.9	2.53
150	156	731	26.3	25.6	22.2	25.4	27.2	3.39	6.6	14.8	0.30	9.39	39.8	86	3.70	0.146	0.136	7.8	0.53	3793	3335	196	69	C	G	0.5588	408.5	2.62	730	25.6	400.2	2.57	717	25.9	391.2	2.51	704	26.1	382.8	2.45
155	161	702	26.8	26.0	22.5	25.6	27.4	3.44	6.7	14.9	0.31	9.69	39.6	85	3.77	0.147	0.138	7.7	0.53	3773	3335	193	68	C	G	0.5818	408.4	2.54	701	26.1	400.2	2.49	690	26.3	391.4	2.43	679	26.5	383.5	2.38
160	166	676	27.3	26.5	22.7	25.8	27.6	3.49	6.7	15.0	0.31	9.98	39.5	84	3.85	0.149	0.139	7.6	0.53	3754	3335	191	67	C	G	0.6041	408.4	2.46	675	26.5	400.4	2.41	666	26.8	391.7	2.36	656	27.0	384.2	2.32
165	171	651	27.7	27.0	22.9	26.0	27.8	3.54	6.8	15.0	0.31	10.26	39.3	83	3.92	0.151	0.141	7.5	0.53	3738	3335	188	67	C	G	0.6261	407.6	2.38	651	27.0	399.6	2.34	642	27.2	391.0	2.29	633	27.4	384.0	2.25
170	176	629	28.2	27.4	23.1	26.1	27.9	3.59	6.9	15.1	0.31	10.54	39.2	83	3.99	0.153	0.143	7.4	0.53	3723	3335	185	66	C	G	0.6474	407.2	2.31	629	27.4	399.4	2.27	621	27.6	390.9	2.22	613	27.8	384.2	2.18
175	181	608	28.6	27.8	23.3	26.3	28.1	3.64	7.0	15.1	0.31	10.81	39.0	82	4.06	0.154	0.144	7.3	0.53	3710	3335	183	66	C	G	0.6683	406.3	2.25	608	27.8	398.5	2.20	601	28.0	390.1	2.16	594	28.2	383.8	2.12
180	186	589	29.0	28.2	23.4	26.5	28.2	3.68	7.0	15.1	0.31	11.08	38.9	81	4.12	0.156	0.146	7.2	0.53	3699	3335	181	65	C	G	0.6885	405.5	2.18	589	28.2	397.9	2.14	583	28.4	389.6	2.10	577	28.6	383.5	2.06
SI = 18 m Initial Density = 15000 stems/ha																																								
5	11	14531	1.3	1.2	2.2	3.1	3.3	0.69	1.4	0.7	0.67	0.38	1.9	202	0.83	0.269	0.252	1.7	0.02	1949	4366	107	55	C	G	0.0001	2.1	0.19	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	13486	2.7	2.5	3.6	5.1	5.5	0.79	1.8	1.5	0.53	0.49	7.5	150	0.86	0.170	0.158	4.6	0.09	2592	4366	193	66	C	G	0.0010	13.8	0.87	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	12092	3.9	3.6	5.0	7.0	7.6	0.89	2.1	2.5	0.44	0.64	14.3	137	0.91	0.131	0.120	7.3	0.17	3214	4366	265	77	D	G	0.0031	37.0	1.77	25	8.0	0.3	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	10588	5.0	4.7	6.4	8.7	9.6	1.01	2.3	3.5	0.39	0.82	21.2	131	0.97	0.111	0.102	9.4	0.26	3743	4366	318	87	D	G	0.0065	69.3	2.67	689	8.1	9.8	0.38	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	31	9143	6.2	5.8	7.6	10.3	11.4	1.12	2.5	4.5	0.35	1.02	27.2	127	1.05	0.101	0.092	11.0	0.34	4154	4366	353	94	D	G	0.0117	106.6	3.44	2165	8.5	40.9	1.32	8	12.6	0.5	0.02	0	0.0	0.0	0.00
30	36	7848	7.2	6.9	8.8	11.8	13.0	1.24	2.7	5.4	0.33	1.25	32.3	123	1.13	0.096	0.087	12.0	0.41	4452	4366	372	98	D	G	0.0185	145.1	4.04	3446	9.0	85.4	2.38	95	12.8	6.1	0.17	8	14.5	0.6	0.02
35	41	6734	8.3	7.9	9.8	13.1	14.5	1.35	2.9	6.2	0.31	1.50	36.3	120	1.22	0.093	0.084	12.6	0.46	4655	4366	380	101	D	G	0.0271	182.4	4.45	4001	9.6	131.3	3.21	358	13.1	26.2	0.64	64	14.7	5.2	0.13
40	46	5796	9.3	8.8	10.8	14.3	15.8	1.46	3.1	7.0	0.30	1.76	39.3	118	1.31	0.092	0.083	12.9	0.50	4783	4366	381	102	D	G	0.0375	217.1	4.73	4111	10.2	174.4	3.80	760	13.5	62.6	1.36	221	15.0	20.4	0.44
45	51	5014	10.3	9.8	11.8	15.3	17.0	1.57	3.2	7.7	0.29	2.04	41.6	116	1.41	0.092	0.083	13.0	0.53	4853	4366	376	102	D	G	0.0495	248.4	4.88	3966	10.9	212.6	4.17	1227	13.8	111.6	2.19	474	15.3	48.4	0.95
50	56	4366	11.2	10.7	12.6	16.3	18.0	1.68	3.4	8.4	0.29	2.33	43.2	113	1.51	0.093	0.084	12.9	0.55	4881	4366	369	102	D	G	0.0633	276.2	4.94	3702	11.6	245.8	4.39	1557	14.2	159.0	2.84	796	15.5	88.7	1.59
55	61	3827	12.1	11.6	13.4	17.2	18.9	1.78	3.6	9.0	0.28	2.63	44.3	112	1.62	0.094	0.085	12.7	0.57	4879	4366	359	101	D	G	0.0785	300.4	4.93	3400	12.4	274.2	4.50	1770	14.7	202.4	3.32	1057	15.9	130.5	2.14
60	66	3379	13.0	12.5	14.1	18.0	19.8	1.89	3.8	9.6	0.28	2.94	45.1	110	1.72	0.096	0.087	12.5	0.58	4856	4366	349	99	D	G	0.0951	321.4	4.87	3097	13.1	298.4	4.53	1877	15.2	239.9	3.64	1254	16.3	171.4	2.60
65	71	3003	13.9	13.3	14.8	18.7	20.6	1.98	4.0	10.1	0.28	3.25	45.5	108	1.82	0.098	0.089	12.2	0.59	4817	4366	338	98	D	G	0.1130	339.4	4.78	2814	13.8	318.9	4.50	1903	15.7	271.3	3.82	1382	16.7	208.6	2.94
70	76	2687	14.7	14.1	15.4	19.3	21.3	2.08	4.1	10.6	0.28	3.57	45.8	107	1.93	0.100	0.091	11.9	0.59	4768	4366	327	96	D	G	0.1320	354.7	4.67	2556	14.6	336.2	4.43	1876	16.2	297.1	3.91	1450	17.2	241.1	3.17
75	81	2419	15.5	14.9	16.0	19.9	21.9	2.17	4.3	11.0	0.28	3.89	45.8	105	2.03	0.102	0.093	11.6	0.59	4713	4366	316	94	D	G	0.1520	367.6	4.54	2329	15.3	350.7	4.33	1818	16.8	318.2	3.93	1474	17.7	268.7	3.32
80	86	2191	16.3	15.7	16.6	20.5	22.5	2.26	4.4	11.5	0.28	4.21	45.8	104	2.14	0.104	0.095	11.3	0.59	4654	4366	306	92	D	G	0.1727	378.4	4.40	2125	16.0	362.8	4.22	1738	17.3	335.3	3.90	1463	18.1	291.9	3.40
85	91	1995	17.1	16.4	17.1	21.0	23.0	2.34	4.6	11.8	0.28	4.53	45.6	103	2.24	0.107	0.097	11.0	0.59	4593	4366	296	90	D	G	0.1942	387.4	4.26	1947	16.7	372.8	4.10	1651	17.9	349.2	3.84	1431	18.6	311.1	3.42
90	96	1826	17.8	17.1	17.5	21.4	23.5	2.43	4.8	12.2	0.28	4.85	45.4	101	2.34	0.109	0.100	10.8	0.59	4532	4366	287	89	D	G	0.2162	394.8	4.11	1792	17.4	381.1	3.97	1564	18.4	360.5	3.76	1386	19.1	327.0	3.41
95	101	1680	18.5	17.8	18.0	21.9	23.9	2.50	4.9	12.5	0.28	5.17	45.1	100	2.44	0.112	0.102	10.5	0.59	4472	4366	278	87	D	G	0.2386	400.9	3.97	1655	18.0	388.0	3.84	1476	19.0	369.6	3.66	1334	19.6	340.0	3.37
100	106	1553	19.2	18.5	18.4	22.3	24.4	2.58	5.0	12.8	0.28	5.49	44.8	99	2.54	0.114	0.104	10.2	0.58	4413	4366	270	85	D	G	0.2613	405.8	3.83	1531	18.7	393.5	3.71	1391	19.5	376.9	3.56	1275	20.1	350.7	3.31
105	111	1441	19.8	19.1	18.8	22.6	24.7	2.66	5.2	13.1	0.28	5.81	44.4	98	2.63	0.116	0.106	10.0	0.58	4356	4366	262	84	D	G	0.2843	409.7	3.69	1425	19.3	398.0	3.59	1313	20.1	382.8	3.45	1218	20.6	359.4	3.24
110	116	1343	20.4	19.8	19.1	23.0	25.1	2.73	5.3	13.3	0.28	6.12	44.1	97	2.73	0.119	0.109	9.7	0.58	4302	4366	255	82	D	G	0.3074	412.8	3.56	1331	19.9	401.5	3.46	1242	20.6	387.5	3.34	1164	21.1	366.5	3.16
115	121	1256	21.1	20.4	19.5	23.3	25.4	2.80	5.4	13.5	0.28	6.43	43.7	95	2.82	0.121	0.111	9.5	0.57	4250	4366	248	81	D	G	0.3305	415.1	3.43	1247	20.5	404.2	3.34	1174	21.1	391.1	3.23	1110	21.6	372.2	3.08
120	126	1178	21.7	21.0	19.8	23.6	25.7	2.86	5.6	13.7	0.29	6.74	43.4	94	2.91	0.123	0.113	9.3	0.57	4201	4366	242	79	D	G	0.3538	416.8	3.31	1171	21.1	406.3	3.23	1111	21.6	393.9	3.13	1058	22.1	376.7	2.99
125	131	1110	22.2	21.5	20.1	23.9	26.0	2.93	5.7	13.9	0.29	7.04	43.0	93	3.00	0.126	0.115	9.1	0.57	4154	4366	236	78	D	G	0.3765	417.9	3.19	1103	21.6	407.8	3.11	1053	22.1	396.0	3.02	1008	22.5	380.4	2.91
130	136	1048	22.8	22.1	20.4	24.2	26.3	2.99	5.8	14.1	0.29	7.34	42.7	92	3.09	0.128	0.118	8.9	0.56	4111	4366	231	77	D	G	0.3994	418.6	3.08	1042	22.1	408.8	3.01	1002	22.6	397.5	2.92	964	23.0	383.2	2.82
135	141	993	23.3	22.6	20.6	24.4	26.5	3.05	5.9	14.2	0.29	7.64	42.4	91	3.17	0.130	0.120	8.8	0.56	4069	4366	226	76	D	G	0.4219	418.9	2.97	988	22.7	409.3	2.90	954	23.1	398.5	2.83	922	23.5	385.4	2.73
140	146	943	23.8	23.1	20.9	24.7	26.8	3.11	6.0	14.3	0.29	7.93	42.1	90	3.26	0.132	0.122	8.6	0.56	4031	4366	221	75	D	G	0.4442	418.9	2.87	938	23.2	409.6	2.81	910	23.6	399.1	2.73	882	23.9	387.0	2.65
145	151	898	24.3	23.6	21.1	24.9	27.0	3.16	6.1	14.4	0.29	8.22	41.8	89	3.34	0.134	0.124	8.5	0.55	3995	4366	216	74	D	G	0.4663	418.7	2.77	896	23.7	409.5	2.71	871	24.0	399.4	2.65	847	24.4	388.1	2.57
150	156	857	24.8	24.1	21.4	25.1	27.2	3.22	6.2	14.5	0.30	8.50	41.5	88	3.42	0.136	0.126	8.3	0.55	3962	4366	212	73	D	G	0.4880	418.2	2.68	854	24.1	409.2	2.62	833	24.5	399.4	2.56	812	24.8	388.9	2.49
155	161	819	25.3	24.6	21.6	25.3	27.4	3.27	6.3	14.6	0.30	8.78	41.2	87	3.49	0.138	0.128	8.2	0.55	3931	4366	208	72	D	G	0.5098	417.5	2.59	818	24.6	408.7	2.54	801	24.9	399.1	2.48	783	25.2	389.3	2.42
160	166	785	25.8	25.0	21.8	25.5	27.6	3.32	6.4	14.7	0.30	9.06	41.0	87	3.57	0.140	0.129	8.1	0.55	3903	4366	205	71	D	G	0.5308	416.7	2.51	785	25.1	408.0	2.46	770	25.4	398.6	2.40	754	25.6	389.4	2.35
165	171	754	26.2	25.5	22.0	25.7	27.8	3.37	6.5	14.7	0.30	9.33	40.7	86	3.64	0.142	0.131	8.0	0.54	3876	4366	201	70	D	G	0.5513	415.7	2.43	752	25.5	407.2	2.38	738	25.8	398.0	2.33	724	26.0	389.3	2.28
170	176	726	26.7	25.9	22.2	25.8	27.9	3.42	6.6	14.8	0.30	9.59	40.5	85	3.71	0.144	0.133	7.8	0.54	3852	4366	198	70	C	G	0.5711	414.6	2.36	726	25.9	406.3	2.31	714	26.2	397.2	2.26	702	26.4	389.0	2.21
175	181	700	27.1	26.3	22.4	26.0	28.1	3.47	6.6	14.8	0.31	9.86	40.3	84	3.78	0.145	0.135	7.7	0.54	3830	4366	195	69	C	G	0.5907	413.5	2.29	699	26.3	405.3	2.24	688	26.6	396.3	2.19	677	26.8	388.6	2.15
180	186	676	27.5	26.7	22.5	26.1	28.2	3.51	6.7	14.9	0.31	10.11	40.1	83	3.85	0.147	0.136	7.7	0.54	3810	4366	193	68	C	G	0.6099	412.3	2.22	673	26.7	404.2	2.17	663	27.0	395.3	2.13	654	27.2	388.0	2.09

Table A98. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 18 m Initial Density = 20000 stems/ha																																								
5	11	19307	1.2	1.1	2.2	3.1	3.3	0.69	1.3	0.7	0.65	0.37	2.1	217	0.72	0.234	0.219	1.9	0.03	2516	5303	133	71	D	G	0.0001	2.2	0.20	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	17770	2.4	2.3	3.5	5.0	5.5	0.77	1.7	1.5	0.51	0.47	8.3	157	0.75	0.149	0.137	5.3	0.10	3227	5303	233	83	D	G	0.0008	14.8	0.93	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	15753	3.6	3.4	4.9	6.9	7.6	0.87	1.9	2.5	0.43	0.60	15.9	143	0.80	0.115	0.105	8.4	0.20	3883	5303	315	94	D	G	0.0025	39.6	1.89	7	7.9	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	13620	4.7	4.4	6.1	8.7	9.6	0.97	2.1	3.4	0.37	0.76	23.4	135	0.86	0.099	0.090	10.8	0.29	4412	5303	373	103	D	G	0.0054	73.6	2.84	444	8.0	5.9	0.23	0	0.0	0.1	0.00	0	0.0	0.0	0.00
25	31	11617	5.7	5.4	7.4	10.3	11.4	1.08	2.3	4.3	0.34	0.94	29.9	130	0.93	0.090	0.082	12.5	0.38	4801	5303	408	109	D	G	0.0097	112.3	3.63	1904	8.3	32.6	1.05	2	12.5	0.1	0.00	0	0.0	0.0	0.00
30	36	9859	6.7	6.4	8.5	11.7	13.0	1.18	2.5	5.2	0.32	1.14	35.2	126	1.01	0.086	0.077	13.5	0.45	5066	5303	427	113	D	G	0.0154	152.0	4.23	3495	8.7	77.1	2.15	41	12.7	2.6	0.07	2	14.4	0.1	0.00
35	41	8373	7.7	7.3	9.5	13.0	14.5	1.29	2.7	6.0	0.30	1.37	39.3	123	1.09	0.084	0.076	14.1	0.50	5230	5303	432	114	D	G	0.0227	190.1	4.64	4336	9.2	125.3	3.06	217	13.0	15.3	0.37	26	14.6	2.1	0.05
40	46	7143	8.7	8.3	10.5	14.2	15.8	1.40	2.8	6.7	0.29	1.60	42.4	120	1.18	0.083	0.075	14.4	0.54	5318	5303	430	115	D	G	0.0315	225.2	4.90	4616	9.8	171.1	3.72	567	13.3	44.5	0.97	124	14.8	11.0	0.24
45	51	6132	9.6	9.2	11.4	15.2	17.0	1.50	3.0	7.4	0.28	1.86	44.6	118	1.28	0.084	0.075	14.4	0.57	5351	5303	422	114	D	G	0.0419	256.8	5.04	4546	10.5	211.9	4.16	1054	13.5	90.3	1.77	327	15.0	31.8	0.62
50	56	5303	10.5	10.0	12.2	16.2	18.0	1.60	3.2	8.1	0.28	2.12	46.2	116	1.37	0.085	0.076	14.2	0.59	5344	5303	411	112	D	G	0.0537	284.7	5.09	4292	11.1	247.1	4.42	1455	13.9	138.6	2.48	635	15.3	66.6	1.19
55	61	4621	11.4	10.9	12.9	17.0	18.9	1.70	3.4	8.7	0.28	2.39	47.2	114	1.47	0.086	0.078	14.0	0.61	5310	5303	399	111	D	G	0.0669	309.1	5.07	3966	11.8	277.0	4.55	1750	14.3	185.1	3.04	924	15.6	106.6	1.75
60	66	4057	12.3	11.7	13.6	17.8	19.8	1.80	3.5	9.2	0.27	2.67	47.9	112	1.57	0.088	0.079	13.7	0.62	5257	5303	386	108	D	G	0.0813	330.0	5.00	3624	12.5	302.3	4.58	1930	14.7	226.4	3.43	1169	15.9	148.2	2.25
65	71	3588	13.1	12.5	14.3	18.5	20.6	1.89	3.7	9.8	0.27	2.96	48.2	110	1.67	0.090	0.081	13.3	0.62	5191	5303	372	106	D	G	0.0970	348.0	4.91	3295	13.2	323.6	4.56	2011	15.2	261.5	3.69	1349	16.3	187.8	2.65
70	76	3196	13.9	13.3	14.9	19.2	21.3	1.98	3.9	10.3	0.27	3.25	48.4	109	1.77	0.092	0.083	13.0	0.63	5118	5303	359	104	D	G	0.1136	363.2	4.78	2996	13.8	341.4	4.50	2026	15.7	290.6	3.83	1469	16.7	223.4	2.94
75	81	2865	14.7	14.1	15.4	19.7	21.9	2.07	4.0	10.7	0.27	3.54	48.3	107	1.87	0.095	0.085	12.6	0.63	5041	5303	346	101	D	G	0.1312	376.0	4.65	2724	14.5	356.3	4.40	1987	16.2	314.4	3.88	1528	17.1	254.2	3.14
80	86	2585	15.4	14.8	16.0	20.3	22.5	2.16	4.2	11.1	0.27	3.84	48.2	106	1.97	0.097	0.088	12.3	0.62	4962	5303	334	99	D	G	0.1496	386.8	4.50	2483	15.2	368.7	4.29	1921	16.7	333.6	3.88	1547	17.6	280.4	3.26
85	91	2345	16.1	15.5	16.5	20.8	23.0	2.24	4.3	11.5	0.27	4.13	47.9	104	2.07	0.099	0.090	11.9	0.62	4883	5303	323	97	D	G	0.1687	395.7	4.35	2273	15.8	379.0	4.17	1840	17.2	349.2	3.84	1536	18.0	302.3	3.32
90	96	2140	16.8	16.2	16.9	21.3	23.5	2.32	4.5	11.8	0.27	4.43	47.6	103	2.16	0.102	0.092	11.6	0.62	4805	5303	312	95	D	G	0.1883	403.0	4.20	2086	16.5	387.5	4.04	1750	17.7	361.8	3.77	1504	18.5	320.4	3.34
95	101	1962	17.5	16.9	17.3	21.7	23.9	2.39	4.6	12.2	0.27	4.73	47.2	102	2.26	0.104	0.094	11.3	0.61	4728	5303	302	93	D	G	0.2084	408.9	4.05	1921	17.1	394.4	3.91	1658	18.2	371.9	3.68	1458	18.9	335.3	3.32
100	106	1807	18.2	17.5	17.7	22.1	24.4	2.47	4.8	12.5	0.27	5.02	46.8	101	2.35	0.107	0.097	11.0	0.61	4655	5303	292	91	D	G	0.2289	413.7	3.90	1777	17.7	399.9	3.77	1568	18.7	379.9	3.59	1405	19.4	347.5	3.28
105	111	1672	18.8	18.1	18.1	22.4	24.7	2.54	4.9	12.7	0.28	5.32	46.4	99	2.45	0.109	0.099	10.7	0.60	4584	5303	283	89	D	G	0.2496	417.4	3.76	1648	18.3	404.4	3.65	1482	19.2	386.3	3.48	1348	19.9	357.5	3.22
110	116	1553	19.4	18.7	18.5	22.8	25.1	2.61	5.0	13.0	0.28	5.61	45.9	98	2.54	0.111	0.101	10.4	0.60	4517	5303	275	87	D	G	0.2706	420.3	3.63	1532	18.9	407.8	3.52	1400	19.7	391.4	3.38	1290	20.3	365.6	3.15
115	121	1448	20.0	19.3	18.8	23.1	25.4	2.68	5.2	13.2	0.28	5.90	45.5	97	2.63	0.114	0.103	10.2	0.60	4452	5303	267	85	D	G	0.2917	422.4	3.49	1432	19.5	410.4	3.39	1325	20.2	395.3	3.27	1233	20.8	372.1	3.08
120	126	1355	20.6	19.9	19.1	23.4	25.7	2.74	5.3	13.4	0.28	6.19	45.1	96	2.72	0.116	0.106	9.9	0.59	4392	5303	260	84	D	G	0.3128	423.8	3.36	1342	20.0	412.4	3.27	1254	20.7	398.2	3.16	1177	21.2	377.3	3.00
125	131	1272	21.1	20.4	19.4	23.7	26.0	2.80	5.4	13.6	0.28	6.48	44.7	95	2.80	0.118	0.108	9.7	0.59	4334	5303	253	82	D	G	0.3340	424.8	3.24	1263	20.6	413.7	3.16	1189	21.2	400.4	3.06	1125	21.7	381.4	2.91
130	136	1198	21.7	21.0	19.7	23.9	26.3	2.87	5.5	13.7	0.28	6.76	44.2	94	2.89	0.121	0.110	9.5	0.58	4280	5303	247	81	D	G	0.3549	425.2	3.13	1189	21.1	414.5	3.05	1129	21.7	402.0	2.96	1075	22.1	384.6	2.83
135	141	1132	22.2	21.5	19.9	24.2	26.5	2.92	5.6	13.9	0.29	7.04	43.9	93	2.97	0.123	0.112	9.3	0.58	4229	5303	241	80	D	G	0.3757	425.3	3.02	1125	21.6	414.9	2.94	1074	22.1	402.9	2.86	1028	22.5	387.1	2.75
140	146	1072	22.7	22.0	20.2	24.4	26.8	2.98	5.8	14.0	0.29	7.31	43.5	92	3.05	0.125	0.114	9.1	0.57	4181	5303	235	78	D	G	0.3965	425.0	2.91	1066	22.1	415.0	2.84	1024	22.6	403.5	2.76	985	23.0	388.9	2.66
145	151	1018	23.2	22.5	20.4	24.6	27.0	3.04	5.9	14.1	0.29	7.59	43.1	91	3.13	0.127	0.116	8.9	0.57	4137	5303	230	77	D	G	0.4170	424.5	2.81	1012	22.6	414.7	2.75	976	23.0	403.6	2.67	943	23.4	390.1	2.58
150	156	969	23.7	23.0	20.6	24.9	27.2	3.09	6.0	14.2	0.29	7.86	42.8	90	3.21	0.129	0.118	8.8	0.56	4095	5303	225	76	D	G	0.4373	423.7	2.72	966	23.0	414.1	2.66	935	23.5	403.5	2.59	905	23.8	390.9	2.51
155	161	924	24.2	23.4	20.9	25.1	27.4	3.14	6.1	14.3	0.29	8.12	42.4	89	3.29	0.131	0.120	8.6	0.56	4056	5303	221	75	D	G	0.4575	422.7	2.63	921	23.5	413.4	2.57	895	23.9	403.0	2.50	869	24.2	391.4	2.43
160	166	884	24.6	23.9	21.1	25.2	27.6	3.20	6.1	14.4	0.30	8.38	42.1	88	3.36	0.133	0.122	8.5	0.56	4020	5303	217	74	D	G	0.4769	421.6	2.54	879	23.9	412.5	2.49	857	24.3	402.4	2.42	835	24.6	391.5	2.36
165	171	847	25.1	24.3	21.3	25.4	27.8	3.24	6.2	14.5	0.30	8.64	41.8	87	3.44	0.135	0.124	8.4	0.55	3986	5303	213	73	D	G	0.4963	420.4	2.46	845	24.4	411.4	2.41	824	24.7	401.5	2.35	804	25.0	391.3	2.29
170	176	813	25.5	24.7	21.4	25.6	27.9	3.29	6.3	14.5	0.30	8.90	41.5	86	3.51	0.137	0.126	8.2	0.55	3955	5303	209	72	D	G	0.5154	419.0	2.38	811	24.8	410.2	2.33	793	25.1	400.5	2.28	775	25.4	390.9	2.22
175	181	782	25.9	25.2	21.6	25.7	28.1	3.34	6.4	14.6	0.30	9.15	41.3	86	3.58	0.139	0.127	8.1	0.55	3926	5303	205	72	D	G	0.5339	417.5	2.31	778	25.2	408.9	2.26	762	25.5	399.4	2.21	747	25.8	390.4	2.16
180	186	753	26.3	25.6	21.8	25.9	28.2	3.38	6.5	14.6	0.30	9.40	41.0	85	3.64	0.141	0.129	8.0	0.54	3899	5303	202	71	D	G	0.5525	416.0	2.24	752	25.6	407.5	2.19	738	25.9	398.2	2.14	724	26.1	389.7	2.10
SI = 18 m Initial Density = 30000 stems/ha																																								
5	11	28814	1.0	0.9	2.1	3.1	3.3	0.68	1.2	0.7	0.62	0.36	2.3	244	0.59	0.192	0.179	2.3	0.03	3616	7010	179	104	D	G	0.0001	2.4	0.22	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	26204	2.2	2.0	3.4	5.0	5.5	0.75	1.5	1.5	0.49	0.44	9.5	169	0.62	0.123	0.113	6.5	0.12	4413	7010	303	116	D	G	0.0006	16.1	1.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	22854	3.2	3.0	4.6	6.9	7.6	0.83	1.7	2.4	0.40	0.55	18.3	151	0.66	0.096	0.087	10.2	0.23	5082	7010	400	125	D	G	0.0019	42.8	2.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	19414	4.2	3.9	5.8	8.6	9.6	0.92	1.9	3.3	0.35	0.68	26.6	142	0.72	0.083	0.075	13.0	0.34	5571	7010	464	132	D	G	0.0041	78.8	3.04	169	7.9	2.9	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	31	16281	5.1	4.8	7.0	10.2	11.4	1.01	2.1	4.1	0.32	0.83	33.7	136	0.78	0.077	0.069	14.9	0.44	5890	7010	500	136	D	G	0.0073	119.1	3.85	1317	8.1	19.9	0.64	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	36	13608	6.1	5.7	8.0	11.6	13.0	1.11	2.2	4.9	0.30	1.01	39.3	131	0.86	0.074	0.066	16.0	0.51	6072	7010	515	137	D	G	0.0117	159.7	4.44	3191	8.4	60.0	1.67	7	12.6	0.5	0.01	0	0.0	0.0	0.00
35	41	11405	7.0	6.6	9.0	12.9	14.5	1.21	2.4	5.7	0.29	1.19	43.6	127	0.94	0.073	0.065	16.5	0.57	6153	7010	516	136	D	G	0.0174	198.3	4.84	4515	8.8	109.1	2.66	75	12.8	5.1	0.12	4	14.4	0.3	0.01
40	46	9619	7.9	7.5	9.9	14.0	15.8	1.30	2.6	6.4	0.28	1.40	46.7	124	1.02	0.073	0.065	16.6	0.61	6163	7010	508	134	D	G	0.0243	233.5	5.08	5179	9.3	158.3	3.45	322	12.9	23.4	0.51	37	14.6	3.2	0.07
45	51	8176	8.7	8.3	10.7	15.1	17.0	1.40	2.7	7.0	0.28	1.61	48.8	121	1.11	0.073	0.065	16.5	0.63	6126	7010	494	132	D	G	0.0324	265.0	5.20	5326	9.8	202.7	3.98	711	13.2	56.5	1.11	145	14.8	13.3	0.26
50	56	7010	9.6	9.1	11.5	16.0	18.0	1.49	2.9	7.6	0.27	1.84	50.3	119	1.19	0.075	0.066	16.3	0.65	6056	7010	478	129	D	G	0.0418	292.7	5.23	5165	10.4	241.0	4.31	1154	13.5	100.4	1.79	373	14.9	36.3	0.65
55	61	6062	10.4	9.9	12.2	16.8	18.9	1.58	3.1	8.2	0.27	2.07	51.2	117	1.28	0.076	0.068	15.9	0.67	5967	7010	461	126	D	G	0.0523	316.8	5.20	4850	11.0	273.4	4.49	1551	13.8	147.9	2.43	647	15.2	68.4	1.12
60	66	5287	11.2	10.7	12.8	17.6	19.8	1.67	3.2	8.7	0.27	2.31	51.8	115	1.38	0.078	0.069	15.5	0.67	5864	7010	443	122	D	G	0.0638	337.5	5.12	4477	11.6	300.5	4.56	1850	14.2	193.2	2.93	930	15.5	106.6	1.62
65	71	4647	11.9	11.4	13.5	18.3	20.6	1.76	3.4	9.2	0.27	2.56	52.0	113	1.47	0.080	0.071	15.0	0.68	5755	7010	426	119	D	G	0.0764	355.1	5.01	4096	12.2	323.2	4.56	2042	14.6	233.6	3.29	1177	15.8	146.5	2.07
70	76	4116	12.7	12.1	14.0	18.9	21.3	1.85	3.5	9.7	0.26	2.81	51.9	111	1.56	0.082	0.073	14.6	0.68	5643	7010	409	116	D	G	0.0899	370.1	4.87	3732	12.8	342.1	4.50	2140	15.0	267.9	3.53	1369	16.1	184.8	2.43
75	81	3671	13.4	12.8	14.5	19.5	21.9	1.93	3.7	10.1	0.26	3.07	51.7	110	1.65	0.085	0.075	14.1	0.67	5530	7010	393	113	D	G	0.1042	382.7	4.73	3401	13.4	357.8	4.42	2168	15.4	296.4	3.66	1503	16.5	219.5	2.71
80	86	3296	14.1	13.5	15.0	20.0	22.5	2.01	3.8	10.5	0.27	3.33	51.4	108	1.74	0.087	0.077	13.7	0.67	5419	7010	378	110	D	G	0.1193	393.3	4.58	3101	14.0	370.8	4.31	2144	15.8	319.7	3.72	1582	16.8	250.1	2.91
85	91	2977	14.8	14.2	15.5	20.5	23.0	2.08	4.0	10.9	0.27	3.59	51.0	107	1.83	0.089	0.080	13.3	0.66	5311	7010	364	107	D	G	0.1350	402.0	4.42	2834	14.6	381.5	4.19	2089	16.3	338.6	3.72	1620	17.2	276.2	3.04
90	96	2704	15.4	14.8	15.9	21.0	23.5	2.16	4.1	11.2	0.27	3.85	50.6	106	1.92	0.092	0.082	12.9	0.66	5206	7010	350	104	D	G	0.1513	409.1	4.26	2598	15.2	390.3	4.07	2013	16.7	353.8	3.69	1623	17.6	298.2	3.11
95	101	2468	16.1	15.5	16.3	21.4	23.9	2.23	4.3	11.5	0.27	4.11	50.1	104	2.01	0.094	0.084	12.5	0.65	5105	7010	338	101	D	G	0.1681	414.9	4.11	2388	15.8	397.4	3.94	1927	17.2	366.1	3.63	1605	18.0	316.6	3.14
100	106	2264	16.7	16.1	16.7	21.8	24.4	2.30	4.4	11.8	0.27	4.37	49.5	103	2.10	0.097	0.086	12.1	0.65	5009	7010	326	99	D	G	0.1852	419.4	3.96	2204	16.4	403.1	3.80	1836	17.6	375.8	3.55	1569	18.4	331.8	3.13
105	111	2086	17.3	16.7	17.1	22.1	24.7	2.37	4.5	12.1	0.27	4.63	49.0	102	2.19	0.099	0.089	11.8	0.64	4917	7010	315	97	D	G	0.2028	423.0	3.81	2035	16.9	407.6	3.67	1743	18.1	383.5	3.46	1521	18.8	344.3	3.10
110	116	1930	17.9	17.2	17.4	22.5	25.1	2.44	4.7	12.4	0.27	4.90	48.4	101	2.28	0.101	0.091	11.5	0.63	4830	7010	305	94	D	G	0.2206	425.7	3.67	1891	17.5	411.1	3.55	1654	18.5	389.6	3.36	1470	19.2	354.5	3.06
115	121	1793	18.4	17.8	17.7	22.8	25.4	2.50	4.8	12.6	0.27	5.15	47.9	100	2.36	0.104	0.093	11.2	0.63	4747	7010	296	92	D	G	0.2385	427.6	3.54	1762	18.0	413.8	3.42	1568	19.0	394.3	3.26	1415	19.6	362.8	3.00
120	126	1671	19.0	18.3	18.0	23.1	25.7	2.56	4.9	12.8	0.28	5.41	47.4	99	2.45	0.106	0.095	10.9	0.62	4669	7010	287	90	D	G	0.2566	428.8	3.40	1646	18.5	415.7	3.30	1487	19.4	397.9	3.16	1358	20.0	369.5	2.93
125	131	1563	19.5	18.9	18.3	23.3	26.0	2.62	5.0	13.0	0.28	5.67	46.8	98	2.53	0.108	0.097	10.6	0.61	4595	7010	279	89	D	G	0.2748	429.5	3.28	1543	19.0	416.9	3.18	1412	19.8	400.5	3.06	1302	20.4	374.9	2.86
130	136	1467	20.0	19.4	18.6	23.6	26.3	2.68	5.1	13.2	0.28	5.92	46.3	97	2.61	0.111	0.099	10.3	0.61	4526	7010	271	87	D	G	0.2929	429.7	3.16	1448	19.5	417.7	3.07	1339	20.3	402.4	2.96	1247	20.8	379.1	2.79
135	141	1381	20.6	19.9	18.8	23.8	26.5	2.74	5.3	13.3	0.28	6.18	45.8	96	2.69	0.113	0.101	10.1	0.60	4460	7010	264	85	D	G	0.3111	429.6	3.05	1368	20.0	417.9	2.97	1275	20.7	403.6	2.86	1196	21.2	382.3	2.71
140	146	1303	21.0	20.3	19.0	24.1	26.8	2.79	5.4	13.5	0.28	6.43	45.3	95	2.77	0.115	0.103	9.9	0.59	4399	7010	257	84	D	G	0.3292	429.0	2.94	1291	20.5	417.8	2.86	1213	21.1	404.2	2.77	1146	21.6	384.8	2.64
145	151	1233	21.5	20.8	19.3	24.3	27.0	2.85	5.5	13.6	0.28	6.68	44.9	94	2.85	0.117	0.105	9.7	0.59	4341	7010	251	82	D	G	0.3473	428.2	2.84	1224	20.9	417.3	2.76	1158	21.5	404.5	2.68	1100	22.0	386.6	2.56
150	156	1170	22.0	21.3	19.5	24.5	27.2	2.90	5.6	13.7	0.29	6.92	44.4	93	2.92	0.119	0.107	9.5	0.58	4286	7010	245	81	D	G	0.3651	427.2	2.74	1163	21.4	416.6	2.67	1106	21.9	404.3	2.59	1056	22.4	387.8	2.49
155	161	1112	22.5	21.7	19.7	24.7	27.4	2.95	5.7	13.8	0.29	7.16	44.0	92	3.00	0.122	0.109	9.3	0.58	4235	7010	240	80	D	G	0.3830	425.9	2.65	1104	21.8	415.6	2.58	1056	22.4	403.8	2.51	1012	22.8	388.6	2.41
160	166	1060	22.9	22.2	19.9	24.9	27.6	3.00	5.8	13.9	0.29	7.41	43.6	91	3.07	0.124	0.111	9.1	0.57	4187	7010	235	78	D	G	0.4005	424.5	2.56	1053	22.3	414.5	2.50	1010	22.8	403.0	2.43	973	23.1	388.9	2.34
165	171	1012	23.3	22.6	20.1	25.0	27.8	3.05	5.9	14.0	0.29	7.64	43.2	90	3.14	0.126	0.113	9.0	0.57	4143	7010	230	77	D	G	0.4179	422.9	2.47	1008	22.7	413.1	2.42	969	23.2	402.1	2.35	935	23.5	388.8	2.27
170	176	968	23.8	23.0	20.2	25.2	27.9	3.09	5.9	14.0	0.29	7.88	42.9	89	3.21	0.128	0.115	8.8	0.56	4101	7010	226	76	D	G	0.4351	421.2	2.39	963	23.1	411.7	2.34	931	23.5	400.9	2.28	901	23.9	388.5	2.21
175	181	928	24.2	23.4	20.4	25.3	28.1	3.14	6.0	14.1	0.30	8.11	42.5	88	3.28	0.130	0.117	8.7	0.56	4062	7010	221	75	D	G	0.4520	419.5	2.32	922	23.5	410.1	2.27	893	23.9	399.7	2.21	866	24.2	388.0	2.14
180	186	891	24.6	23.8	20.6	25.5	28.2	3.19	6.1	14.1	0.30	8.34	42.2	87	3.35	0.131	0.119	8.5	0.55	4025	7010	217	74	D	G	0.4687	417.6	2.25	887	23.9	408.4	2.20	862	24.3	398.3	2.14	837	24.6	387.3	2.08

Table A99. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
		SI = 18 m Initial Density = 50000 stems/ha																																						
5	11	47710	0.8	0.8	2.0	3.0	3.3	0.67	1.1	0.7	0.58	0.35	2.5	288	0.46	0.150	0.139	2.8	0.04	5734	10051	262	168	D	G	0.0001	2.5	0.23	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	42721	1.8	1.7	3.1	5.0	5.5	0.72	1.3	1.5	0.45	0.41	11.1	187	0.48	0.097	0.089	8.2	0.15	6589	10051	421	176	D	G	0.0004	17.4	1.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	36498	2.7	2.5	4.3	6.8	7.6	0.79	1.5	2.3	0.38	0.50	21.3	163	0.52	0.077	0.069	12.9	0.28	7176	10051	538	181	D	G	0.0013	46.0	2.20	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	30339	3.6	3.4	5.4	8.5	9.6	0.87	1.6	3.1	0.33	0.60	30.7	151	0.57	0.067	0.060	16.2	0.41	7501	10051	608	182	D	G	0.0028	83.5	3.22	20	7.7	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	31	24934	4.4	4.2	6.4	10.1	11.4	0.95	1.8	3.9	0.31	0.72	38.5	143	0.63	0.063	0.056	18.3	0.51	7629	10051	640	179	D	G	0.0050	124.4	4.02	511	7.8	6.7	0.22	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	36	20475	5.3	5.0	7.4	11.5	13.0	1.03	1.9	4.6	0.29	0.85	44.4	137	0.70	0.061	0.054	19.4	0.59	7623	10051	648	175	D	G	0.0081	164.9	4.59	2137	8.0	33.2	0.92	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	41	16903	6.1	5.7	8.2	12.7	14.5	1.11	2.1	5.2	0.28	1.00	48.7	133	0.77	0.060	0.053	19.8	0.64	7535	10051	639	170	D	G	0.0120	202.7	4.95	3933	8.4	76.3	1.86	8	12.6	0.5	0.01	0	0.0	0.0	0.00
40	46	14074	6.8	6.5	9.0	13.8	15.8	1.19	2.2	5.8	0.27	1.17	51.8	129	0.84	0.061	0.053	19.8	0.68	7398	10051	621	164	D	G	0.0168	236.9	5.16	5252	8.7	125.9	2.74	77	12.6	5.3	0.12	3	14.4	0.3	0.01
45	51	11833	7.6	7.2	9.8	14.8	17.0	1.28	2.4	6.4	0.27	1.34	53.8	125	0.92	0.062	0.054	19.5	0.71	7234	10051	599	158	D	G	0.0226	267.1	5.24	5929	9.2	173.6	3.41	273	12.8	20.0	0.39	25	14.5	2.2	0.04
50	56	10051	8.4	7.9	10.5	15.7	18.0	1.36	2.5	6.9	0.26	1.52	55.1	123	1.00	0.063	0.055	19.1	0.72	7056	10051	575	153	D	G	0.0292	293.6	5.25	6101	9.6	215.8	3.86	605	13.1	47.7	0.85	110	14.6	9.9	0.18
55	61	8621	9.1	8.6	11.1	16.6	18.9	1.44	2.7	7.4	0.26	1.71	55.8	120	1.08	0.065	0.057	18.5	0.73	6874	10051	550	147	D	G	0.0367	316.4	5.19	5957	10.1	251.7	4.13	1012	13.3	85.7	1.41	269	14.8	25.8	0.42
60	66	7464	9.8	9.3	11.7	17.3	19.8	1.52	2.8	7.9	0.26	1.90	56.1	118	1.16	0.067	0.058	17.9	0.74	6692	10051	525	142	D	G	0.0450	336.1	5.10	5643	10.6	281.7	4.27	1410	13.6	128.6	1.95	494	15.0	50.4	0.76
65	71	6519	10.5	10.0	12.3	18.0	20.6	1.60	3.0	8.4	0.26	2.10	56.1	116	1.24	0.069	0.060	17.3	0.74	6513	10051	502	137	D	G	0.0541	352.9	4.97	5255	11.1	306.6	4.32	1743	13.9	171.4	2.42	747	15.2	81.7	1.15
70	76	5739	11.1	10.6	12.8	18.6	21.3	1.67	3.1	8.8	0.26	2.31	55.9	114	1.32	0.071	0.062	16.8	0.73	6340	10051	480	132	D	G	0.0640	367.1	4.83	4849	11.6	327.2	4.31	1991	14.2	210.8	2.78	997	15.5	116.4	1.53
75	81	5091	11.8	11.3	13.2	19.1	21.9	1.74	3.3	9.2	0.26	2.51	55.5	113	1.40	0.073	0.064	16.2	0.73	6174	10051	459	128	D	G	0.0745	379.1	4.68	4451	12.1	344.2	4.25	2150	14.5	245.4	3.03	1213	15.7	151.5	1.87
80	86	4546	12.4	11.9	13.7	19.6	22.5	1.82	3.4	9.6	0.26	2.73	55.0	111	1.48	0.076	0.066	15.6	0.72	6015	10051	439	124	D	G	0.0856	389.1	4.53	4082	12.6	358.2	4.17	2237	14.8	274.9	3.20	1387	16.0	184.9	2.15
85	91	4086	13.0	12.5	14.1	20.1	23.0	1.88	3.5	9.9	0.26	2.94	54.5	110	1.56	0.078	0.068	15.1	0.71	5864	10051	421	120	D	G	0.0973	397.4	4.37	3742	13.1	369.8	4.07	2265	15.2	299.4	3.29	1514	16.3	215.4	2.37
90	96	3693	13.6	13.1	14.5	20.5	23.5	1.95	3.7	10.3	0.26	3.15	53.8	109	1.65	0.080	0.070	14.6	0.70	5721	10051	404	116	D	G	0.1095	404.2	4.21	3436	13.6	379.2	3.95	2251	15.5	319.6	3.33	1597	16.6	242.3	2.53
95	101	3356	14.2	13.6	14.9	20.9	23.9	2.02	3.8	10.6	0.26	3.37	53.2	107	1.73	0.082	0.072	14.1	0.69	5585	10051	389	113	D	G	0.1221	409.7	4.06	3159	14.1	386.9	3.83	2205	15.9	336.1	3.33	1642	16.9	265.7	2.63
100	106	3065	14.8	14.2	15.2	21.3	24.4	2.08	3.9	10.8	0.26	3.58	52.5	106	1.81	0.085	0.074	13.7	0.68	5456	10051	374	110	D	G	0.1351	414.0	3.91	2914	14.6	393.0	3.71	2142	16.3	349.4	3.30	1661	17.2	285.7	2.70
105	111	2812	15.3	14.7	15.5	21.7	24.7	2.14	4.1	11.1	0.27	3.80	51.8	105	1.89	0.087	0.076	13.2	0.67	5335	10051	360	107	D	G	0.1484	417.4	3.76	2688	15.1	397.9	3.59	2066	16.6	360.1	3.25	1656	17.6	302.6	2.73
110	116	2591	15.8	15.2	15.8	22.0	25.1	2.20	4.2	11.4	0.27	4.02	51.1	104	1.96	0.089	0.078	12.8	0.67	5221	10051	348	104	D	G	0.1621	419.9	3.62	2494	15.6	401.7	3.46	1984	17.0	368.6	3.18	1634	17.9	316.8	2.73
115	121	2396	16.4	15.7	16.1	22.3	25.4	2.26	4.3	11.6	0.27	4.24	50.4	103	2.04	0.092	0.080	12.5	0.66	5113	10051	336	101	D	G	0.1760	421.7	3.49	2318	16.1	404.6	3.35	1898	17.4	375.3	3.10	1600	18.2	328.6	2.72
120	126	2225	16.9	16.2	16.4	22.6	25.7	2.32	4.4	11.8	0.27	4.45	49.8	102	2.12	0.094	0.082	12.1	0.65	5011	10051	325	99	D	G	0.1900	422.8	3.36	2161	16.5	406.7	3.23	1813	17.8	380.5	3.02	1559	18.6	338.3	2.69
125	131	2072	17.4	16.7	16.6	22.8	26.0	2.38	4.5	12.0	0.27	4.67	49.1	101	2.20	0.096	0.084	11.8	0.64	4916	10051	315	97	D	G	0.2043	423.4	3.23	2021	17.0	408.1	3.12	1731	18.1	384.5	2.94	1513	18.9	346.3	2.64
130	136	1937	17.9	17.2	16.9	23.1	26.3	2.43	4.6	12.2	0.27	4.88	48.5	100	2.27	0.098	0.086	11.5	0.63	4825	10051	306	95	D	G	0.2186	423.5	3.12	1893	17.4	409.0	3.01	1650	18.5	387.5	2.85	1463	19.2	352.8	2.60
135	141	1815	18.3	17.7	17.1	23.3	26.5	2.48	4.8	12.3	0.28	5.10	47.9	99	2.35	0.101	0.088	11.2	0.62	4740	10051	297	93	D	G	0.2332	423.2	3.00	1783	17.9	409.3	2.90	1576	18.9	389.7	2.76	1415	19.6	358.1	2.54
140	146	1706	18.8	18.1	17.3	23.5	26.8	2.54	4.9	12.5	0.28	5.31	47.3	98	2.42	0.103	0.090	10.9	0.61	4660	10051	288	91	D	G	0.2477	422.5	2.89	1676	18.3	409.3	2.80	1503	19.3	391.1	2.68	1364	19.9	362.2	2.48
145	151	1608	19.2	18.5	17.5	23.7	27.0	2.59	5.0	12.6	0.28	5.52	46.7	97	2.49	0.105	0.092	10.6	0.61	4585	10051	281	89	D	G	0.2622	421.6	2.79	1585	18.7	408.8	2.71	1435	19.6	391.9	2.60	1314	20.2	365.5	2.42
150	156	1520	19.7	19.0	17.7	23.9	27.2	2.63	5.1	12.8	0.28	5.73	46.1	96	2.56	0.107	0.094	10.4	0.60	4514	10051	273	87	D	G	0.2766	420.4	2.70	1500	19.1	408.1	2.62	1373	20.0	392.3	2.52	1268	20.6	368.0	2.36
155	161	1439	20.1	19.4	17.9	24.1	27.4	2.68	5.2	12.9	0.28	5.94	45.6	95	2.64	0.109	0.096	10.2	0.59	4447	10051	267	86	D	G	0.2911	418.9	2.60	1420	19.6	407.1	2.53	1311	20.3	392.2	2.44	1219	20.9	369.8	2.30
160	166	1366	20.5	19.8	18.1	24.3	27.6	2.73	5.3	13.0	0.29	6.15	45.1	94	2.71	0.111	0.098	10.0	0.58	4384	10051	260	84	D	G	0.3055	417.3	2.51	1350	19.9	405.9	2.45	1251	20.7	391.5	2.36	1169	21.2	370.7	2.23
165	171	1299	20.9	20.2	18.2	24.5	27.8	2.77	5.3	13.1	0.29	6.36	44.6	93	2.77	0.113	0.100	9.8	0.58	4325	10051	254	83	D	G	0.3199	415.6	2.43	1286	20.3	404.5	2.37	1200	21.1	390.9	2.29	1127	21.6	371.5	2.17
170	176	1238	21.3	20.6	18.4	24.6	27.9	2.82	5.4	13.2	0.29	6.56	44.2	92	2.84	0.115	0.102	9.6	0.57	4269	10051	249	81	D	G	0.3342	413.7	2.35	1225	20.7	403.0	2.29	1150	21.4	389.9	2.22	1086	21.9	372.0	2.11
175	181	1182	21.7	21.0	18.6	24.8	28.1	2.86	5.5	13.2	0.29	6.76	43.8	91	2.91	0.117	0.104	9.4	0.56	4217	10051	243	80	D	G	0.3484	411.8	2.28	1171	21.1	401.3	2.22	1105	21.7	388.8	2.15	1048	22.2	372.0	2.06
180	186	1131	22.1	21.3	18.7	24.9	28.2	2.91	5.6	13.3	0.29	6.97	43.3	91	2.97	0.119	0.105	9.2	0.56	4168	10051	238	79	D	G	0.3622	409.7	2.20	1123	21.5	399.5	2.15	1064	22.1	387.5	2.08	1013	22.5	371.8	2.00
		SI = 18 m Initial Density = 80000 stems/ha																																						
5	11	75873	0.7	0.6	1.8	3.0	3.3	0.66	1.0	0.8	0.55	0.35	2.5	345	0.36	0.120	0.110	3.1	0.04	8802	14124	374	263	D	G	0.0000	2.4	0.22	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	66963	1.5	1.4	2.9	4.9	5.5	0.71	1.1	1.4	0.43	0.39	12.4	207	0.39	0.078	0.071	10.0	0.17	9598	14124	569	263	D	G	0.0003	18.0	1.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	56139	2.3	2.2	4.0	6.8	7.6	0.76	1.3	2.2	0.36	0.46	23.9	176	0.42	0.062	0.056	15.7	0.33	9925	14124	702	256	D	G	0.0008	47.4	2.26	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	45776	3.1	2.9	4.9	8.4	9.6	0.82	1.4	2.9	0.32	0.54	34.2	161	0.47	0.055	0.049	19.5	0.46	9915	14124	772	246	D	G	0.0019	85.0	3.28	1	7.6	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	31	36970	3.8	3.6	5.8	10.0	11.4	0.89	1.5	3.5	0.30	0.63	42.4	151	0.52	0.052	0.046	21.7	0.57	9709	14124	797	233	D	G	0.0034	125.1	4.04	98	7.7	1.1	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	36	29910	4.5	4.3	6.7	11.3	13.0	0.96	1.7	4.1	0.28	0.74	48.5	144	0.58	0.051	0.044	22.7	0.65	9409	14124	792	220	D	G	0.0055	163.8	4.56	921	7.8	12.2	0.34	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	41	24389	5.2	5.0	7.5	12.6	14.5	1.03	1.8	4.7	0.27	0.85	52.8	138	0.64	0.051	0.044	23.0	0.71	9073	14124	771	208	D	G	0.0082	199.3	4.87	2522	8.0	40.4	0.99	0	0.0	0.0	0.00	0	0.0	0.0	0.00
40	46	20097	5.9	5.6	8.2	13.6	15.8	1.10	2.0	5.2	0.27	0.98	55.7	133	0.71	0.052	0.045	22.8	0.74	8731	14124	741	197	D	G	0.0115	231.0	5.03	4256	8.3	81.9	1.78	6	12.5	0.4	0.01	0	0.0	0.0	0.00
45	51	16752	6.6	6.3	8.8	14.6	17.0	1.17	2.1	5.7	0.26	1.12	57.5	129	0.77	0.053	0.046	22.4	0.76	8398	14124	708	187	D	G	0.0154	258.8	5.08	5560	8.6	127.8	2.51	53	12.6	3.7	0.07	1	14.3	0.1	0.00
50	56	14124	7.3	6.9	9.4	15.5	18.0	1.24	2.2	6.2	0.26	1.26	58.6	126	0.84	0.054	0.047	21.7	0.78	8081	14124	674	178	D	G	0.0200	283.0	5.06	6298	9.0	171.4	3.06	187	12.7	13.6	0.24	15	14.4	1.3	0.02
55	61	12037	7.9	7.5	10.0	16.3	18.9	1.31	2.4	6.7	0.26	1.41	59.1	123	0.91	0.056	0.048	21.0	0.78	7782	14124	640	170	D	G	0.0252	303.8	4.98	6563	9.3	210.0	3.45	430	12.9	33.2	0.54	60	14.5	5.2	0.09
60	66	10363	8.5	8.1	10.5	17.0	19.8	1.38	2.5	7.1	0.26	1.56	59.2	121	0.98	0.058	0.050	20.3	0.78	7503	14124	609	162	D	G	0.0310	321.6	4.88	6506	9.7	242.7	3.68	755	13.1	61.8	0.94	155	14.7	14.5	0.22
65	71	9005	9.1	8.7	11.0	17.7	20.6	1.45	2.6	7.5	0.26	1.72	59.0	119	1.05	0.060	0.051	19.5	0.78	7241	14124	579	155	D	G	0.0374	336.8	4.75	6258	10.1	270.1	3.81	1110	13.3	96.3	1.36	307	14.8	30.2	0.43
70	76	7891	9.7	9.3	11.4	18.2	21.3	1.51	2.8	7.9	0.26	1.88	58.6	117	1.13	0.062	0.053	18.8	0.77	6998	14124	551	149	D	G	0.0443	349.7	4.60	5911	10.5	292.8	3.86	1444	13.6	132.9	1.75	501	15.0	51.9	0.68
75	81	6970	10.3	9.8	11.9	18.8	21.9	1.58	2.9	8.2	0.26	2.05	58.0	115	1.20	0.064	0.055	18.1	0.76	6770	14124	525	143	D	G	0.0517	360.6	4.45	5522	10.9	311.4	3.85	1726	13.8	168.6	2.08	714	15.2	78.0	0.96
80	86	6199	10.9	10.4	12.3	19.3	22.5	1.64	3.0	8.6	0.26	2.22	57.4	114	1.27	0.066	0.057	17.4	0.75	6558	14124	500	138	D	G	0.0596	369.7	4.30	5125	11.4	326.8	3.80	1942	14.1	201.5	2.34	923	15.4	106.4	1.24
85	91	5550	11.4	10.9	12.6	19.7	23.0	1.70	3.2	8.9	0.26	2.39	56.6	112	1.34	0.068	0.058	16.8	0.74	6360	14124	478	133	D	G	0.0680	377.3	4.15	4745	11.8	339.4	3.73	2094	14.3	230.7	2.54	1113	15.6	135.3	1.49
90	96	4998	11.9	11.4	13.0	20.1	23.5	1.76	3.3	9.2	0.26	2.56	55.9	111	1.41	0.070	0.060	16.2	0.73	6176	14124	458	128	D	G	0.0767	383.5	4.00	4386	12.2	349.8	3.65	2188	14.6	255.9	2.67	1272	15.8	163.0	1.70
95	101	4526	12.4	11.9	13.3	20.5	23.9	1.82	3.4	9.5	0.26	2.73	55.1	110	1.49	0.072	0.062	15.6	0.72	6003	14124	439	124	D	G	0.0859	388.6	3.85	4055	12.6	358.2	3.55	2234	14.9	277.2	2.75	1398	16.1	188.8	1.87
100	106	4119	12.9	12.4	13.6	20.9	24.4	1.87	3.5	9.7	0.26	2.91	54.3	108	1.56	0.075	0.064	15.1	0.71	5841	14124	421	120	D	G	0.0953	392.6	3.71	3733	13.1	364.9	3.44	2240	15.2	295.1	2.79	1490	16.3	212.2	2.00
105	111	3766	13.4	12.9	13.9	21.2	24.7	1.93	3.6	10.0	0.27	3.08	53.4	107	1.63	0.077	0.066	14.6	0.69	5690	14124	405	116	D	G	0.1051	395.7	3.57	3463	13.5	370.5	3.34	2221	15.5	309.9	2.79	1554	16.6	233.0	2.10
110	116	3459	13.9	13.3	14.1	21.5	25.1	1.98	3.8	10.2	0.27	3.26	52.6	106	1.70	0.079	0.068	14.1	0.68	5548	14124	389	113	D	G	0.1151	398.1	3.43	3217	13.9	374.8	3.23	2181	15.8	322.1	2.78	1592	16.8	251.1	2.17
115	121	3189	14.4	13.8	14.4	21.8	25.4	2.04	3.9	10.4	0.27	3.44	51.8	105	1.77	0.081	0.070	13.7	0.67	5415	14124	375	110	D	G	0.1254	399.8	3.31	2994	14.3	378.2	3.13	2126	16.1	332.0	2.75	1608	17.1	266.9	2.21
120	126	2950	14.8	14.2	14.6	22.1	25.7	2.09	4.0	10.6	0.27	3.61	51.1	104	1.84	0.083	0.072	13.3	0.66	5290	14124	362	107	D	G	0.1359	400.9	3.18	2792	14.7	380.8	3.02	2062	16.4	340.0	2.70	1609	17.3	280.4	2.23
125	131	2740	15.3	14.7	14.8	22.3	26.0	2.14	4.1	10.8	0.27	3.79	50.3	103	1.91	0.086	0.073	12.9	0.65	5173	14124	350	104	D	G	0.1465	401.5	3.07	2608	15.1	382.7	2.92	1992	16.7	346.4	2.65	1595	17.6	291.9	2.23
130	136	2552	15.7	15.1	15.1	22.6	26.3	2.19	4.2	11.0	0.27	3.97	49.6	102	1.98	0.088	0.075	12.5	0.64	5063	14124	339	101	D	G	0.1574	401.6	2.95	2445	15.5	383.9	2.82	1922	17.0	351.5	2.59	1575	17.9	301.6	2.22
135	141	2385	16.2	15.5	15.3	22.8	26.5	2.24	4.3	11.2	0.28	4.14	48.9	101	2.05	0.090	0.077	12.2	0.63	4959	14124	328	99	D	G	0.1683	401.3	2.85	2296	15.9	384.6	2.73	1849	17.3	355.4	2.52	1544	18.1	309.7	2.20
140	146	2234	16.6	15.9	15.4	23.0	26.8	2.28	4.4	11.3	0.28	4.32	48.2	100	2.12	0.092	0.079	11.8	0.62	4862	14124	318	97	D	G	0.1794	400.8	2.75	2160	16.3	384.9	2.64	1777	17.6	358.4	2.46	1509	18.4	316.5	2.17
145	151	2099	17.0	16.3	15.6	23.2	27.0	2.33	4.5	11.5	0.28	4.50	47.5	99	2.18	0.094	0.081	11.5	0.61	4770	14124	309	94	D	G	0.1905	399.9	2.65	2033	16.7	384.8	2.55	1707	17.9	360.6	2.39	1472	18.7	322.1	2.13
150	156	1977	17.4	16.7	15.8	23.4	27.2	2.37	4.6	11.6	0.28	4.67	46.9	99	2.25	0.096	0.083	11.3	0.60	4683	14124	300	92	D	G	0.2017	398.8	2.56	1923	17.0	384.3	2.46	1640	18.2	362.1	2.32	1432	19.0	326.7	2.09
155	161	1866	17.8	17.1	16.0	23.6	27.4	2.42	4.7	11.7	0.28	4.84	46.3	98	2.31	0.098	0.084	11.0	0.59	4602	14124	292	90	D	G	0.2130	397.4	2.47	1821	17.4	383.6	2.38	1567	18.5	362.6	2.25	1380	19.3	329.6	2.05
160	166	1766	18.2	17.5	16.1	23.7	27.6	2.46	4.8	11.8	0.29	5.02	45.7	97	2.38	0.100	0.086	10.7	0.59	4525	14124	285	89	D	G	0.2242	395.9	2.39	1724	17.7	382.7	2.31	1503	18.8	363.1	2.19	1338	19.6	332.7	2.00
165	171	1674	18.5	17.8	16.3	23.9	27.8	2.50	4.9	11.9	0.29	5.19	45.2	96	2.44	0.102	0.088	10.5	0.58	4453	14124	278	87	D	G	0.2355	394.3	2.31	1640	18.1	381.5	2.23	1446	19.1	363.3	2.13	1299	19.8	335.1	1.96
170	176	1591	18.9	18.2	16.4	24.0	27.9	2.54	4.9	12.0	0.29	5.36	44.6	95	2.51	0.104	0.090	10.3	0.57	4385	14124	271	85	D	G	0.2467	392.5	2.23	1560	18.4	380.2	2.16	1390	19.4	363.1	2.06	1259	20.1	336.9	1.91
175	181	1514	19.3	18.5	16.5	24.2	28.1	2.59	5.0	12.1	0.29	5.54	44.1	94	2.57	0.106	0.091	10.1	0.56	4320	14124	265	84	D	G	0.2580	390.6	2.16	1488	18.8	378.7	2.09	1337	19.7	362.6	2.00	1220	20.4	338.3	1.87
180	186	1444	19.6	18.9	16.7	24.3	28.2	2.63	5.1	12.2	0.29	5.71	43.7	93	2.63	0.108	0.093	9.9	0.56	4259	14124	259	82	D	G	0.2691	388.6	2.09	1420	19.1	377.1	2.03	1287	20.0	361.9	1.95	1183	20.6	339.2	1.82

Table A100. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 19 m Initial Density = 800 stems/ha																																								
5	11	796	3.1	2.9	2.7	3.3	3.4	0.82	2.3	0.4	0.83	0.54	0.6	108	3.54	1.078	1.035	0.3	0.01	165	626	14	4	V	G	0.0011	0.9	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	788	5.9	5.6	4.6	5.5	5.8	1.09	3.5	1.3	0.72	0.98	2.2	96	3.56	0.649	0.618	0.9	0.02	330	626	29	8	A	G	0.0071	5.6	0.36	92	9.2	1.4	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	775	8.4	7.9	6.5	7.6	8.0	1.35	4.4	2.5	0.63	1.52	4.3	94	3.59	0.471	0.447	1.5	0.04	534	626	44	12	A	G	0.0201	15.6	0.76	412	10.0	10.8	0.52	54	13.4	2.7	0.13	14	14.9	0.8	0.04
20	26	758	10.5	10.0	8.2	9.6	10.2	1.59	5.0	3.8	0.56	2.12	6.6	94	3.63	0.378	0.358	2.0	0.07	756	626	59	16	A	G	0.0404	30.6	1.19	579	11.4	25.9	1.01	204	14.3	14.5	0.57	97	15.7	7.5	0.29
25	31	739	12.5	11.9	9.9	11.4	12.1	1.81	5.4	5.1	0.51	2.75	9.1	93	3.68	0.322	0.305	2.6	0.10	981	626	72	20	A	G	0.0668	49.4	1.61	645	12.8	44.8	1.46	351	15.2	33.6	1.10	225	16.4	23.0	0.75
30	36	718	14.3	13.6	11.4	13.1	13.8	2.01	5.7	6.3	0.47	3.38	11.5	93	3.73	0.286	0.271	3.0	0.13	1199	626	83	24	A	G	0.0986	70.8	1.99	665	14.2	66.2	1.86	454	16.2	56.2	1.58	340	17.3	44.3	1.24
35	41	695	15.9	15.2	12.8	14.5	15.3	2.20	6.0	7.4	0.44	4.02	13.7	92	3.79	0.261	0.247	3.4	0.15	1405	626	93	28	A	G	0.1345	93.5	2.30	664	15.6	88.8	2.19	515	17.2	80.0	1.97	422	18.2	68.2	1.68
40	46	672	17.3	16.6	14.1	15.9	16.7	2.36	6.2	8.4	0.42	4.64	15.9	92	3.86	0.243	0.231	3.8	0.18	1596	626	102	31	B	G	0.1735	116.6	2.56	653	16.9	111.8	2.45	547	18.3	104.0	2.28	475	19.1	92.8	2.03
45	51	649	18.7	18.0	15.3	17.0	17.9	2.52	6.4	9.3	0.40	5.26	17.8	91	3.93	0.230	0.219	4.1	0.21	1770	626	109	34	B	G	0.2148	139.4	2.75	637	18.2	134.5	2.66	562	19.3	127.4	2.52	506	20.0	117.0	2.31
50	56	626	19.9	19.2	16.4	18.1	19.0	2.66	6.6	10.1	0.39	5.86	19.5	90	4.00	0.221	0.210	4.4	0.23	1926	626	115	37	B	G	0.2577	161.3	2.90	618	19.4	156.3	2.81	564	20.2	149.6	2.69	521	20.8	140.1	2.52
55	61	603	21.1	20.3	17.3	19.1	20.0	2.79	6.7	10.8	0.38	6.45	21.1	89	4.07	0.214	0.204	4.6	0.25	2067	626	119	39	B	G	0.3017	181.9	3.00	598	20.5	176.7	2.91	558	21.2	170.3	2.81	525	21.7	161.6	2.67
60	66	582	22.2	21.4	18.2	19.9	20.8	2.92	6.9	11.4	0.37	7.01	22.5	89	4.15	0.208	0.199	4.8	0.28	2192	626	123	41	B	G	0.3459	201.3	3.07	578	21.5	196.1	2.99	549	22.1	189.8	2.89	523	22.6	181.8	2.77
65	71	561	23.2	22.4	19.0	20.7	21.6	3.03	7.0	12.0	0.36	7.56	23.7	88	4.22	0.204	0.195	4.9	0.30	2304	626	126	42	B	G	0.3904	219.0	3.10	559	22.5	213.6	3.02	536	23.0	207.5	2.94	516	23.4	200.1	2.83
70	76	542	24.1	23.4	19.8	21.4	22.4	3.14	7.1	12.6	0.36	8.10	24.8	87	4.30	0.200	0.192	5.0	0.31	2403	626	129	44	B	G	0.4347	235.6	3.11	540	23.4	230.1	3.04	523	23.9	224.0	2.96	507	24.2	217.1	2.87
75	81	524	25.0	24.3	20.5	22.1	23.0	3.24	7.2	13.0	0.35	8.62	25.8	86	4.37	0.198	0.190	5.2	0.33	2492	626	131	45	B	G	0.4782	250.6	3.11	523	24.3	245.1	3.04	509	24.7	238.9	2.96	497	25.0	232.6	2.88
80	86	506	25.9	25.1	21.1	22.7	23.6	3.33	7.3	13.4	0.35	9.12	26.6	86	4.45	0.196	0.188	5.2	0.35	2572	626	133	46	B	G	0.5213	263.8	3.08	505	25.1	258.2	3.02	495	25.4	252.1	2.94	484	25.7	246.1	2.87
85	91	491	26.7	25.9	21.7	23.2	24.1	3.42	7.4	13.8	0.35	9.60	27.4	85	4.51	0.194	0.187	5.3	0.36	2644	626	134	47	B	G	0.5635	276.7	3.05	491	25.9	271.0	2.99	482	26.2	264.8	2.92	474	26.4	259.3	2.86
90	96	476	27.4	26.6	22.2	23.7	24.6	3.51	7.5	14.1	0.34	10.07	28.1	84	4.58	0.193	0.186	5.4	0.38	2709	626	135	48	B	G	0.6046	287.8	3.01	476	26.6	282.1	2.95	469	26.9	275.9	2.88	462	27.1	270.6	2.83
95	101	462	28.1	27.4	22.7	24.2	25.1	3.58	7.6	14.4	0.34	10.52	28.7	83	4.65	0.192	0.186	5.4	0.39	2768	626	136	49	B	G	0.6446	297.8	2.96	462	27.4	292.0	2.90	456	27.6	285.8	2.84	450	27.8	280.8	2.79
100	106	449	28.8	28.0	23.2	24.6	25.5	3.66	7.7	14.7	0.34	10.96	29.2	82	4.72	0.192	0.185	5.5	0.40	2823	626	136	49	B	G	0.6833	306.8	2.90	449	28.0	301.1	2.85	444	28.2	294.7	2.79	440	28.4	290.1	2.75
105	111	438	29.4	28.7	23.6	25.0	25.9	3.73	7.8	14.9	0.34	11.38	29.8	82	4.78	0.191	0.185	5.5	0.41	2872	626	137	50	B	G	0.7210	315.8	2.85	438	28.7	310.0	2.80	434	28.8	303.6	2.74	430	29.0	299.1	2.70
110	116	427	30.0	29.3	24.0	25.4	26.2	3.80	7.9	15.1	0.34	11.78	30.3	81	4.84	0.190	0.184	5.5	0.42	2918	626	137	50	C	G	0.7574	323.4	2.80	427	29.3	317.5	2.75	424	29.4	311.2	2.69	420	29.6	306.8	2.65
115	121	417	30.6	29.8	24.4	25.8	26.6	3.86	7.9	15.3	0.34	12.18	30.7	80	4.90	0.190	0.184	5.5	0.43	2961	626	138	51	C	G	0.7926	330.5	2.74	417	29.8	324.6	2.69	414	30.0	318.1	2.64	411	30.1	314.0	2.60
120	126	407	31.2	30.4	24.7	26.1	26.9	3.92	8.0	15.4	0.34	12.56	31.1	80	4.96	0.190	0.184	5.6	0.44	3002	626	138	51	C	G	0.8263	336.3	2.68	407	30.4	330.3	2.63	405	30.5	323.9	2.58	402	30.6	319.9	2.55
125	131	399	31.7	30.9	25.1	26.4	27.2	3.98	8.1	15.6	0.34	12.92	31.5	79	5.01	0.190	0.184	5.6	0.45	3040	626	138	52	C	G	0.8589	342.7	2.62	399	30.9	336.7	2.58	397	31.0	330.2	2.53	395	31.1	326.4	2.50
130	136	390	32.2	31.4	25.4	26.7	27.4	4.04	8.1	15.7	0.34	13.28	31.7	78	5.06	0.190	0.185	5.6	0.46	3076	626	138	52	C	G	0.8900	347.1	2.56	390	31.4	341.1	2.51	389	31.5	334.6	2.47	387	31.6	330.9	2.44
135	141	383	32.7	31.9	25.6	26.9	27.7	4.09	8.2	15.8	0.34	13.62	32.1	77	5.11	0.190	0.185	5.6	0.47	3110	626	138	52	C	G	0.9201	352.4	2.51	383	31.9	346.3	2.46	382	31.9	339.8	2.42	380	32.0	336.2	2.39
140	146	376	33.1	32.4	25.9	27.2	27.9	4.14	8.2	15.9	0.34	13.95	32.4	77	5.16	0.190	0.185	5.6	0.48	3143	626	139	52	C	G	0.9487	356.7	2.45	376	32.4	350.7	2.41	375	32.4	344.1	2.36	373	32.5	340.6	2.34
145	151	370	33.6	32.8	26.2	27.4	28.2	4.19	8.3	16.0	0.34	14.28	32.8	76	5.20	0.190	0.185	5.7	0.49	3174	626	139	53	C	G	0.9765	361.3	2.40	370	32.8	355.2	2.36	369	32.8	348.5	2.31	368	32.9	345.2	2.29
150	156	364	34.0	33.2	26.4	27.6	28.4	4.23	8.3	16.0	0.34	14.59	33.0	76	5.24	0.190	0.185	5.7	0.50	3205	626	139	53	C	G	1.0030	365.1	2.35	364	33.2	359.0	2.31	363	33.3	352.2	2.26	362	33.3	349.0	2.24
155	161	358	34.4	33.6	26.6	27.8	28.6	4.28	8.3	16.1	0.34	14.89	33.3	75	5.29	0.190	0.185	5.7	0.51	3234	626	139	53	C	G	1.0282	368.1	2.29	358	33.6	362.0	2.25	357	33.7	355.2	2.21	356	33.7	352.1	2.19
160	166	353	34.8	34.0	26.9	28.0	28.7	4.32	8.4	16.1	0.34	15.18	33.6	74	5.32	0.190	0.185	5.7	0.51	3263	626	139	54	C	G	1.0524	371.5	2.24	353	34.0	365.4	2.21	353	34.0	358.6	2.17	352	34.1	355.6	2.15
165	171	348	35.2	34.4	27.1	28.2	28.9	4.36	8.4	16.2	0.34	15.47	33.8	74	5.36	0.190	0.185	5.7	0.52	3291	626	139	54	C	G	1.0756	374.3	2.19	348	34.4	368.2	2.16	348	34.4	361.4	2.12	347	34.4	358.4	2.10
170	176	343	35.5	34.7	27.2	28.4	29.1	4.40	8.5	16.2	0.34	15.75	34.0	73	5.40	0.190	0.186	5.7	0.53	3319	626	139	54	C	G	1.0980	376.6	2.14	343	34.7	370.4	2.11	343	34.7	363.6	2.07	342	34.8	360.6	2.05
175	181	339	35.9	35.1	27.4	28.5	29.2	4.44	8.5	16.2	0.34	16.02	34.3	73	5.43	0.190	0.186	5.7	0.53	3346	626	139	54	C	G	1.1192	379.4	2.10	339	35.1	373.2	2.07	339	35.1	366.3	2.03	338	35.2	363.4	2.01
180	186	335	36.2	35.4	27.6	28.7	29.4	4.48	8.5	16.2	0.34	16.28	34.5	72	5.46	0.190	0.186	5.7	0.54	3372	626	140	55	C	G	1.1394	381.7	2.06	335	35.4	375.5	2.02	335	35.4	368.6	1.99	334	35.5	365.8	1.97
SI = 19 m Initial Density = 1000 stems/ha																																								
5	11	994	3.0	2.8	2.7	3.3	3.4	0.81	2.3	0.5	0.82	0.52	0.7	113	3.17	0.966	0.926	0.4	0.01	198	728	16	5	A	G	0.0010	1.0	0.09	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	979	5.6	5.3	4.6	5.5	5.8	1.06	3.4	1.4	0.70	0.92	2.4	99	3.20	0.584	0.555	1.0	0.02	385	728	33	9	A	G	0.0063	6.2	0.40	80	9.0	1.1	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	958	8.0	7.5	6.4	7.6	8.0	1.31	4.2	2.6	0.61	1.42	4.8	97	3.23	0.425	0.402	1.7	0.05	612	728	51	14	A	G	0.0178	17.1	0.83	457	9.8	11.0	0.53	43	13.3	2.1	0.10	9	14.8	0.5	0.02
20	26	932	10.0	9.5	8.1	9.6	10.2	1.54	4.7	3.8	0.54	1.97	7.4	96	3.28	0.341	0.322	2.3	0.08	857	728	67	18	A	G	0.0359	33.5	1.31	680	11.0	27.6	1.08	200	14.0	13.6	0.53	84	15.5	6.3	0.25
25	31	901	11.9	11.3	9.8	11.4	12.1	1.75	5.1	5.1	0.49	2.55	10.0	96	3.33	0.292	0.276	2.9	0.11	1102	728	82	23	A	G	0.0598	53.9	1.76	768	12.3	48.2	1.57	376	14.9	34.0	1.11	223	16.1	21.7	0.71
30	36	867	13.6	13.0	11.3	13.0	13.8	1.94	5.4	6.3	0.46	3.14	12.6	95	3.40	0.261	0.246	3.4	0.14	1336	728	94	27	A	G	0.0887	76.9	2.16	792	13.7	71.3	2.00	505	15.8	58.6	1.64	360	16.9	44.2	1.24
35	41	832	15.2	14.5	12.7	14.5	15.3	2.12	5.7	7.4	0.43	3.74	15.1	95	3.47	0.239	0.226	3.9	0.17	1554	728	105	31	B	G	0.1216	101.2	2.49	788	15.0	95.7	2.36	585	16.7	84.6	2.08	463	17.7	70.1	1.73
40	46	797	16.6	15.9	14.0	15.8	16.7	2.29	5.9	8.4	0.41	4.34	17.3	94	3.54	0.224	0.212	4.2	0.20	1752	728	114	35	B	G	0.1578	125.8	2.76	770	16.3	120.2	2.63	626	17.7	110.5	2.42	530	18.6	96.7	2.12
45	51	762	18.0	17.3	15.1	17.0	17.9	2.44	6.1	9.3	0.39	4.93	19.3	93	3.62	0.213	0.202	4.6	0.23	1930	728	121	38	B	G	0.1965	149.7	2.96	745	17.5	144.1	2.85	643	18.7	135.5	2.68	569	19.4	122.7	2.42
50	56	728	19.2	18.5	16.2	18.1	19.0	2.58	6.3	10.1	0.38	5.51	21.1	92	3.71	0.205	0.195	4.8	0.25	2087	728	127	40	B	G	0.2370	172.5	3.10	717	18.7	166.8	3.00	644	19.6	158.9	2.86	587	20.3	147.3	2.65
55	61	695	20.4	19.6	17.2	19.0	20.0	2.71	6.4	10.8	0.37	6.08	22.6	91	3.79	0.200	0.190	5.0	0.28	2225	728	131	42	B	G	0.2787	193.7	3.19	688	19.8	187.9	3.10	634	20.6	180.5	2.98	591	21.1	170.0	2.80
60	66	664	21.5	20.7	18.0	19.9	20.8	2.83	6.6	11.5	0.36	6.63	24.0	90	3.88	0.195	0.186	5.2	0.30	2347	728	135	44	B	G	0.3212	213.3	3.25	659	20.8	207.4	3.16	620	21.5	200.4	3.05	586	22.0	190.8	2.91
65	71	636	22.5	21.7	18.9	20.7	21.6	2.95	6.7	12.0	0.35	7.18	25.2	89	3.97	0.192	0.183	5.3	0.32	2453	728	137	46	B	G	0.3642	231.6	3.28	633	21.8	225.7	3.20	603	22.4	218.8	3.10	577	22.8	210.1	2.97
70	76	609	23.4	22.7	19.6	21.4	22.4	3.06	6.9	12.6	0.35	7.70	26.3	89	4.05	0.190	0.181	5.4	0.33	2547	728	139	47	B	G	0.4071	247.9	3.28	607	22.7	242.0	3.20	584	23.2	235.2	3.11	564	23.6	227.3	3.01
75	81	584	24.3	23.6	20.3	22.0	23.0	3.16	7.0	13.0	0.35	8.22	27.2	88	4.14	0.188	0.180	5.5	0.35	2629	728	141	48	B	G	0.4497	262.6	3.26	582	23.7	256.7	3.18	565	24.1	250.0	3.10	549	24.4	242.7	3.01
80	86	561	25.2	24.4	20.9	22.6	23.6	3.26	7.1	13.4	0.34	8.72	28.0	87	4.22	0.187	0.179	5.6	0.36	2702	728	142	49	B	G	0.4920	276.0	3.22	560	24.5	270.0	3.15	546	24.8	263.3	3.07	533	25.1	256.6	3.00
85	91	540	26.0	25.3	21.5	23.2	24.1	3.35	7.2	13.8	0.34	9.20	28.7	86	4.30	0.186	0.178	5.6	0.38	2766	728	143	50	B	G	0.5335	288.1	3.18	539	25.3	282.1	3.11	529	25.6	275.5	3.04	518	25.8	269.2	2.97
90	96	521	26.8	26.0	22.0	23.7	24.6	3.44	7.3	14.1	0.34	9.67	29.3	85	4.38	0.185	0.178	5.7	0.39	2824	728	143	50	C	G	0.5743	299.2	3.13	521	26.0	293.1	3.06	512	26.3	286.5	3.00	503	26.5	280.6	2.93
95	101	503	27.5	26.7	22.5	24.1	25.1	3.52	7.4	14.4	0.34	10.12	29.9	84	4.46	0.185	0.178	5.7	0.40	2876	728	143	51	C	G	0.6139	308.8	3.07	503	26.7	302.8	3.01	496	27.0	296.2	2.94	489	27.2	290.7	2.89
100	106	487	28.2	27.4	23.0	24.6	25.5	3.59	7.5	14.7	0.34	10.56	30.4	84	4.53	0.184	0.178	5.7	0.41	2923	728	144	51	C	G	0.6528	317.9	3.01	487	27.4	311.8	2.95	481	27.6	305.2	2.89	475	27.8	299.9	2.84
105	111	472	28.9	28.1	23.4	25.0	25.9	3.67	7.6	14.9	0.33	10.99	30.9	83	4.60	0.184	0.178	5.7	0.42	2967	728	144	52	C	G	0.6903	325.8	2.94	472	28.1	319.7	2.89	467	28.3	313.1	2.83	462	28.4	308.1	2.78
110	116	458	29.5	28.7	23.8	25.3	26.2	3.74	7.7	15.1	0.33	11.40	31.2	82	4.67	0.184	0.178	5.8	0.43	3007	728	144	52	C	G	0.7266	332.8	2.88	458	28.7	326.7	2.83	454	28.9	320.1	2.77	450	29.0	315.4	2.73
115	121	445	30.1	29.3	24.2	25.7	26.6	3.80	7.8	15.3	0.33	11.80	31.6	81	4.74	0.185	0.178	5.8	0.44	3044	728	143	53	C	G	0.7620	339.1	2.81	445	29.3	332.9	2.76	442	29.4	326.3	2.70	438	29.6	321.8	2.67
120	126	434	30.6	29.9	24.5	26.0	26.9	3.86	7.8	15.5	0.33	12.19	32.0	80	4.80	0.185	0.179	5.8	0.45	3078	728	144	53	C	G	0.7961	345.5	2.75	434	29.9	339.3	2.70	431	30.0	332.6	2.65	428	30.1	328.3	2.61
125	131	423	31.2	30.4	24.9	26.3	27.2	3.92	7.9	15.6	0.33	12.56	32.3	80	4.86	0.185	0.179	5.8	0.46	3111	728	143	53	C	G	0.8288	350.6	2.68	423	30.4	344.4	2.64	421	30.5	337.7	2.59	418	30.6	333.6	2.55
130	136	413	31.7	30.9	25.2	26.6	27.4	3.98	8.0	15.7	0.33	12.92	32.6	79	4.92	0.185	0.179	5.8	0.47	3142	728	143	53	C	G	0.8603	355.3	2.62	413	30.9	349.2	2.57	411	31.0	342.4	2.52	409	31.1	338.5	2.50
135	141	404	32.2	31.4	25.5	26.9	27.7	4.04	8.0	15.8	0.33	13.27	32.9	78	4.98	0.185	0.180	5.8	0.48	3172	728	143	54	C	G	0.8908	359.9	2.56	404	31.4	353.7	2.52	402	31.5	346.9	2.47	400	31.6	343.1	2.44
140	146	395	32.7	31.9	25.7	27.1	27.9	4.09	8.1	15.9	0.33	13.61	33.1	78	5.03	0.186	0.180	5.8	0.49	3201	728	143	54	C	G	0.9197	363.3	2.49	395	31.9	357.2	2.45	394	31.9	350.4	2.41	392	32.0	346.7	2.38
145	151	388	33.1	32.3	26.0	27.3	28.2	4.14	8.1	16.0	0.33	13.94	33.4	77	5.08	0.186	0.180	5.8	0.50	3228	728	143	54	C	G	0.9479	367.8	2.44	388	32.3	361.6	2.40	387	32.4	354.8	2.36	385	32.5	351.2	2.33
150	156	380	33.5	32.8	26.2	27.6	28.4	4.19	8.2	16.0	0.33	14.25	33.6	76	5.13	0.186	0.181	5.8	0.50	3255	728	142	54	C	G	0.9747	370.4	2.38	380	32.8	364.2	2.34	379	32.8	357.3	2.30	378	32.9	354.0	2.27
155	161	374	34.0	33.2	26.5	27.8	28.6	4.23	8.2	16.1	0.34	14.56	33.9	76	5.17	0.186	0.181	5.8	0.51	3281	728	143	54	C	G	1.0005	374.2	2.33	374	33.2	368.0	2.29	373	33.2	361.1	2.25	372	33.3	357.8	2.23
160	166	368	34.4	33.6	26.7	28.0	28.7	4.27	8.3	16.2	0.34	14.86	34.1	75	5.21	0.186	0.181	5.8	0.52	3306	728	143	55	C	G	1.0253	377.3	2.28	368	33.6	371.1	2.24	367	33.6	364.1	2.20	366	33.7	360.9	2.18
165	171	362	34.7	34.0	26.9	28.1	28.9	4.32	8.3	16.2	0.34	15.15	34.3	74	5.26	0.187	0.182	5.8	0.52	3331	728	142	55	C	G	1.0489	379.7	2.23	362	34.0	373.4	2.19	362	34.0	366.6	2.15	360	34.1	363.3	2.13
170	176	356	35.1	34.3	27.1	28.3	29.1	4.36	8.4	16.2	0.34	15.43	34.5	74	5.30	0.187	0.182	5.8	0.53	3356	728	142	55	C	G	1.0716	381.5	2.17	356	34.3	375.2	2.14	356	34.3	368.3	2.10	355	34.4	365.2	2.08
175	181	351	35.5	34.7	27.3	28.5	29.2	4.40	8.4	16.2	0.34	15.71	34.7	73	5.34	0.187	0.183	5.8	0.54	3380	728	142	55	C	G	1.0932	383.7	2.12	351	34.7	377.4	2.09	351	34.7	370.5	2.05	350	34.8	367.5	2.03
180	186	347	35.8	35.0	27.4	28.6	29.4	4.43	8.4	16.2	0.34	15.98	35.0	72	5.37	0.187	0.183	5.8	0.54	3404	728	142	55	C	G	1.1141	386.6	2.08	347	35.0	380.2	2.05	347	35.0	373.3	2.01	346	35.1	370.3	1.99

Table A101. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 19 m Initial Density = 1600 stems/ha																																								
5	11	1584	2.6	2.4	2.7	3.3	3.4	0.78	2.1	0.5	0.80	0.48	0.8	123	2.51	0.768	0.734	0.5	0.01	292	988	22	8	A	G	0.0008	1.2	0.11	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	1548	5.0	4.7	4.5	5.5	5.8	1.00	3.1	1.4	0.67	0.81	3.1	106	2.54	0.466	0.441	1.4	0.03	532	988	46	13	A	G	0.0048	7.4	0.47	49	8.8	0.6	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	1495	7.1	6.7	6.2	7.6	8.0	1.22	3.8	2.6	0.58	1.22	6.0	103	2.59	0.342	0.322	2.2	0.06	817	988	69	18	A	G	0.0138	20.6	1.00	533	9.3	10.9	0.53	20	13.0	0.9	0.04	2	14.4	0.1	0.00
20	26	1429	9.0	8.5	7.9	9.5	10.2	1.43	4.2	3.9	0.51	1.69	9.1	102	2.65	0.277	0.260	3.0	0.10	1115	988	90	24	A	G	0.0280	40.0	1.56	917	10.3	30.5	1.19	167	13.6	10.5	0.41	50	15.1	3.5	0.14
25	31	1356	10.8	10.2	9.5	11.3	12.1	1.62	4.6	5.2	0.46	2.19	12.3	101	2.72	0.240	0.225	3.8	0.14	1404	988	108	30	A	G	0.0471	63.9	2.09	1081	11.4	55.1	1.80	399	14.2	32.3	1.05	194	15.6	17.1	0.56
30	36	1279	12.4	11.8	11.0	13.0	13.8	1.80	4.9	6.3	0.43	2.70	15.4	100	2.80	0.216	0.203	4.4	0.18	1671	988	122	35	B	G	0.0708	90.5	2.54	1125	12.6	82.2	2.31	600	15.0	61.2	1.72	375	16.3	41.0	1.15
35	41	1202	13.9	13.2	12.4	14.4	15.3	1.97	5.1	7.4	0.40	3.23	18.1	99	2.88	0.200	0.188	4.9	0.21	1911	988	134	39	B	G	0.0983	118.1	2.91	1112	13.9	110.2	2.71	733	15.9	92.2	2.27	531	16.9	70.6	1.74
40	46	1126	15.2	14.6	13.6	15.7	16.7	2.13	5.3	8.4	0.38	3.77	20.6	98	2.98	0.190	0.179	5.3	0.24	2120	988	143	42	B	G	0.1290	145.3	3.18	1072	15.1	137.7	3.02	804	16.7	122.5	2.68	640	17.7	101.8	2.23
45	51	1055	16.6	15.9	14.8	16.9	17.9	2.28	5.5	9.3	0.37	4.31	22.7	97	3.08	0.182	0.172	5.6	0.27	2300	988	150	45	B	G	0.1626	171.5	3.39	1021	16.2	164.1	3.24	833	17.6	151.1	2.98	704	18.5	132.0	2.61
50	56	988	17.8	17.1	15.8	17.9	19.0	2.42	5.7	10.1	0.36	4.85	24.5	96	3.18	0.177	0.167	5.8	0.30	2452	988	155	48	B	G	0.1983	195.9	3.52	967	17.3	188.6	3.39	833	18.5	177.3	3.19	734	19.2	160.1	2.88
55	61	926	18.9	18.2	16.8	18.9	20.0	2.55	5.9	10.8	0.35	5.38	26.1	95	3.29	0.174	0.165	6.0	0.32	2581	988	158	50	B	G	0.2357	218.3	3.60	912	18.4	211.1	3.48	816	19.4	200.9	3.31	742	20.0	185.7	3.06
60	66	869	20.0	19.3	17.7	19.7	20.8	2.68	6.0	11.4	0.34	5.91	27.4	94	3.39	0.172	0.163	6.1	0.34	2689	988	160	51	C	G	0.2743	238.4	3.63	860	19.5	231.3	3.52	790	20.3	222.0	3.38	733	20.9	208.4	3.18
65	71	817	21.1	20.3	18.5	20.5	21.6	2.79	6.2	12.0	0.34	6.43	28.5	93	3.50	0.170	0.162	6.2	0.36	2780	988	161	53	C	G	0.3140	256.5	3.63	811	20.5	249.5	3.53	760	21.1	240.8	3.41	716	21.6	228.7	3.24
70	76	771	22.0	21.3	19.2	21.2	22.4	2.90	6.4	12.5	0.33	6.94	29.4	92	3.60	0.170	0.161	6.3	0.37	2857	988	162	54	C	G	0.3541	273.0	3.61	767	21.4	266.0	3.52	729	22.0	257.8	3.41	695	22.4	246.9	3.26
75	81	729	23.0	22.2	19.9	21.9	23.0	3.01	6.5	13.0	0.33	7.44	30.2	91	3.70	0.169	0.161	6.3	0.39	2922	988	162	54	C	G	0.3944	287.5	3.57	726	22.3	280.6	3.48	697	22.8	272.6	3.38	671	23.2	262.8	3.26
80	86	691	23.8	23.1	20.5	22.5	23.6	3.11	6.6	13.4	0.33	7.93	30.9	90	3.80	0.169	0.161	6.3	0.40	2977	988	162	55	C	G	0.4346	300.3	3.51	689	23.2	293.4	3.43	667	23.6	285.7	3.34	646	23.9	276.7	3.23
85	91	657	24.7	23.9	21.1	23.0	24.1	3.20	6.8	13.8	0.33	8.41	31.4	89	3.90	0.169	0.162	6.3	0.41	3024	988	161	55	C	G	0.4746	311.8	3.44	656	24.0	304.9	3.36	638	24.4	297.3	3.28	622	24.6	289.2	3.19
90	96	626	25.5	24.7	21.6	23.5	24.6	3.29	6.9	14.1	0.33	8.88	31.9	88	4.00	0.170	0.162	6.3	0.42	3065	988	161	56	C	G	0.5139	321.7	3.36	625	24.8	314.9	3.29	611	25.1	307.5	3.22	598	25.4	300.0	3.14
95	101	598	26.2	25.5	22.1	24.0	25.1	3.38	7.0	14.4	0.32	9.33	32.3	87	4.09	0.170	0.163	6.3	0.43	3101	988	160	56	C	G	0.5527	330.5	3.28	597	25.5	323.8	3.22	587	25.8	316.5	3.15	576	26.0	309.5	3.08
100	106	573	26.9	26.2	22.6	24.4	25.5	3.46	7.1	14.7	0.32	9.78	32.7	86	4.18	0.171	0.164	6.3	0.44	3133	988	159	56	C	G	0.5908	338.5	3.20	573	26.2	331.8	3.14	564	26.5	324.5	3.07	555	26.7	318.0	3.01
105	111	550	27.6	26.9	23.0	24.8	25.9	3.53	7.2	14.9	0.32	10.21	33.0	85	4.26	0.172	0.165	6.3	0.45	3162	988	158	56	C	G	0.6278	345.3	3.12	550	26.9	338.7	3.06	543	27.1	331.4	3.00	535	27.3	325.3	2.94
110	116	529	28.3	27.5	23.4	25.2	26.2	3.60	7.3	15.1	0.32	10.62	33.2	84	4.35	0.173	0.166	6.2	0.46	3188	988	157	56	C	G	0.6641	351.3	3.04	529	27.5	344.6	2.98	523	27.7	337.4	2.92	517	27.9	331.7	2.87
115	121	511	28.9	28.1	23.8	25.5	26.6	3.67	7.4	15.3	0.32	11.03	33.5	83	4.42	0.173	0.166	6.2	0.47	3213	988	156	56	C	G	0.6992	357.3	2.96	511	28.1	350.7	2.91	506	28.3	343.5	2.85	501	28.5	338.1	2.80
120	126	494	29.5	28.7	24.1	25.9	26.9	3.74	7.5	15.4	0.32	11.42	33.8	82	4.50	0.174	0.167	6.2	0.47	3235	988	155	56	C	G	0.7332	362.2	2.88	494	28.7	355.6	2.83	490	28.9	348.5	2.77	486	29.0	343.4	2.73
125	131	478	30.1	29.3	24.4	26.2	27.2	3.80	7.6	15.6	0.33	11.80	33.9	81	4.57	0.175	0.168	6.2	0.48	3257	988	154	56	C	G	0.7661	366.2	2.80	478	29.3	359.7	2.75	475	29.4	352.5	2.70	471	29.6	347.7	2.66
130	136	464	30.6	29.8	24.8	26.4	27.4	3.86	7.7	15.7	0.33	12.17	34.1	81	4.64	0.176	0.169	6.2	0.49	3278	988	153	56	C	G	0.7981	370.3	2.73	464	29.8	363.7	2.68	461	30.0	356.6	2.63	458	30.1	352.0	2.60
135	141	451	31.1	30.4	25.0	26.7	27.7	3.92	7.8	15.8	0.33	12.53	34.3	80	4.71	0.176	0.170	6.2	0.49	3298	988	153	56	C	G	0.8288	373.8	2.66	451	30.4	367.3	2.61	449	30.4	360.1	2.56	446	30.6	355.8	2.53
140	146	439	31.6	30.9	25.3	26.9	27.9	3.97	7.8	15.9	0.33	12.87	34.5	79	4.77	0.177	0.171	6.1	0.50	3317	988	152	57	C	G	0.8585	376.9	2.59	439	30.9	370.3	2.54	437	30.9	363.2	2.49	435	31.0	359.0	2.47
145	151	429	32.1	31.3	25.6	27.2	28.2	4.03	7.9	16.0	0.33	13.21	34.7	78	4.83	0.178	0.171	6.1	0.51	3336	988	151	57	C	G	0.8872	380.6	2.53	429	31.3	374.0	2.48	427	31.4	366.9	2.44	425	31.5	362.8	2.41
150	156	419	32.6	31.8	25.8	27.4	28.4	4.08	7.9	16.0	0.33	13.54	34.9	78	4.89	0.178	0.172	6.1	0.51	3355	988	151	57	C	G	0.9146	383.2	2.46	419	31.8	376.7	2.42	418	31.8	369.5	2.37	416	31.9	365.7	2.35
155	161	409	33.0	32.2	26.0	27.6	28.6	4.13	8.0	16.1	0.33	13.86	35.0	77	4.94	0.179	0.173	6.1	0.52	3374	988	150	57	C	G	0.9408	384.8	2.40	409	32.2	378.3	2.36	408	32.3	371.2	2.31	406	32.4	367.4	2.29
160	166	401	33.4	32.6	26.3	27.8	28.7	4.17	8.1	16.1	0.33	14.16	35.2	76	4.99	0.180	0.174	6.1	0.52	3392	988	150	57	C	G	0.9663	387.5	2.34	401	32.6	381.0	2.30	400	32.7	373.8	2.26	398	32.8	370.2	2.24
165	171	393	33.8	33.0	26.5	28.0	28.9	4.22	8.1	16.2	0.33	14.46	35.3	76	5.04	0.180	0.174	6.1	0.53	3410	988	149	57	C	G	0.9906	389.3	2.28	393	33.0	382.8	2.24	392	33.1	375.6	2.20	391	33.2	372.1	2.18
170	176	386	34.2	33.4	26.7	28.2	29.1	4.26	8.1	16.2	0.33	14.75	35.5	75	5.09	0.181	0.175	6.1	0.54	3429	988	149	57	C	G	1.0140	391.4	2.23	386	33.4	384.9	2.19	385	33.5	377.7	2.15	384	33.5	374.3	2.13
175	181	379	34.6	33.8	26.9	28.3	29.2	4.30	8.2	16.2	0.33	15.04	35.6	74	5.14	0.181	0.176	6.1	0.54	3447	988	148	57	C	G	1.0364	392.8	2.17	379	33.8	386.3	2.14	378	33.9	379.1	2.10	377	33.9	375.8	2.08
180	186	373	35.0	34.2	27.0	28.5	29.4	4.34	8.2	16.2	0.33	15.31	35.8	74	5.18	0.182	0.176	6.1	0.55	3466	988	148	57	C	G	1.0579	394.6	2.13	373	34.2	388.1	2.09	373	34.2	380.9	2.05	371	34.3	377.6	2.03
SI = 19 m Initial Density = 2000 stems/ha																																								
5	11	1976	2.5	2.3	2.6	3.3	3.4	0.77	2.0	0.5	0.79	0.47	0.9	128	2.25	0.689	0.657	0.6	0.01	352	1137	26	9	A	G	0.0007	1.3	0.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	1922	4.7	4.4	4.4	5.4	5.8	0.97	2.9	1.5	0.66	0.77	3.4	109	2.28	0.419	0.396	1.6	0.03	621	1137	53	15	A	G	0.0042	8.1	0.52	34	8.7	0.4	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	1843	6.8	6.4	6.2	7.6	8.0	1.18	3.6	2.7	0.56	1.14	6.6	106	2.33	0.308	0.290	2.5	0.07	937	1137	80	21	A	G	0.0122	22.4	1.09	550	9.1	10.5	0.51	12	12.9	0.5	0.02	0	0.0	0.0	0.00
20	26	1748	8.6	8.1	7.8	9.5	10.2	1.38	4.0	3.9	0.50	1.57	10.1	104	2.39	0.251	0.235	3.5	0.11	1262	1137	103	28	A	G	0.0248	43.3	1.69	1037	10.0	31.5	1.23	141	13.4	8.6	0.34	35	14.9	2.4	0.09
25	31	1642	10.3	9.7	9.4	11.3	12.1	1.57	4.3	5.2	0.45	2.04	13.6	103	2.47	0.218	0.204	4.2	0.15	1573	1137	122	33	B	G	0.0420	69.0	2.25	1257	11.0	58.1	1.90	392	14.0	30.3	0.99	169	15.4	14.3	0.47
30	36	1533	11.8	11.2	10.9	12.9	13.8	1.74	4.6	6.3	0.41	2.52	16.8	102	2.55	0.198	0.185	4.9	0.19	1855	1137	138	39	B	G	0.0635	97.3	2.73	1318	12.2	87.3	2.45	632	14.7	60.9	1.71	365	16.0	38.0	1.07
35	41	1426	13.3	12.7	12.2	14.4	15.3	1.91	4.8	7.4	0.39	3.02	19.7	101	2.65	0.184	0.173	5.4	0.23	2102	1137	150	43	B	G	0.0886	126.4	3.11	1301	13.3	117.0	2.88	799	15.5	94.4	2.32	549	16.6	69.0	1.70
40	46	1322	14.6	14.0	13.5	15.7	16.7	2.06	5.1	8.4	0.37	3.53	22.2	100	2.75	0.176	0.165	5.8	0.26	2314	1137	159	47	B	G	0.1171	154.8	3.39	1247	14.5	145.9	3.20	892	16.3	127.0	2.78	683	17.3	102.2	2.24
45	51	1226	15.9	15.3	14.6	16.8	17.9	2.21	5.3	9.2	0.36	4.04	24.4	99	2.86	0.170	0.159	6.1	0.29	2492	1137	165	50	B	G	0.1483	181.8	3.59	1180	15.6	173.3	3.42	930	17.1	157.5	3.11	765	18.0	134.6	2.66
50	56	1137	17.1	16.5	15.6	17.9	19.0	2.35	5.4	10.0	0.35	4.56	26.2	97	2.97	0.166	0.156	6.3	0.32	2640	1137	169	52	C	G	0.1819	206.8	3.72	1108	16.7	198.6	3.57	932	18.0	185.1	3.33	805	18.8	164.5	2.96
55	61	1057	18.3	17.6	16.6	18.8	20.0	2.48	5.6	10.7	0.34	5.08	27.7	96	3.08	0.163	0.154	6.5	0.34	2762	1137	172	54	C	G	0.2173	229.7	3.79	1038	17.8	221.7	3.66	913	18.9	209.9	3.46	817	19.6	191.7	3.16
60	66	984	19.4	18.7	17.4	19.7	20.8	2.60	5.8	11.4	0.33	5.59	29.0	95	3.19	0.162	0.153	6.6	0.36	2862	1137	173	55	C	G	0.2542	250.1	3.81	971	18.9	242.2	3.69	881	19.7	231.6	3.53	809	20.3	215.6	3.28
65	71	919	20.4	19.7	18.2	20.5	21.6	2.72	6.0	12.0	0.33	6.10	30.1	94	3.30	0.161	0.152	6.7	0.38	2944	1137	174	56	C	G	0.2921	268.4	3.80	911	19.8	260.7	3.69	845	20.6	251.0	3.55	789	21.1	236.7	3.35
70	76	860	21.4	20.7	19.0	21.2	22.4	2.83	6.1	12.5	0.33	6.60	30.9	93	3.41	0.161	0.153	6.7	0.39	3011	1137	174	57	C	G	0.3306	284.3	3.76	854	20.8	276.8	3.66	805	21.4	267.6	3.54	763	21.9	255.0	3.37
75	81	808	22.3	21.6	19.6	21.8	23.0	2.94	6.3	12.9	0.32	7.09	31.6	92	3.52	0.161	0.153	6.7	0.41	3067	1137	173	57	C	G	0.3696	298.6	3.70	804	21.7	291.2	3.61	767	22.2	282.5	3.50	735	22.6	271.3	3.36
80	86	762	23.2	22.5	20.3	22.4	23.6	3.04	6.4	13.4	0.32	7.58	32.2	91	3.62	0.162	0.154	6.7	0.42	3113	1137	172	58	C	G	0.4087	311.4	3.64	759	22.6	304.1	3.55	731	23.0	295.7	3.45	706	23.4	285.6	3.34
85	91	720	24.1	23.3	20.8	23.0	24.1	3.13	6.6	13.7	0.32	8.05	32.7	90	3.73	0.162	0.154	6.7	0.43	3151	1137	171	58	C	G	0.4476	322.3	3.56	718	23.4	315.0	3.48	696	23.8	306.9	3.39	676	24.1	297.7	3.28
90	96	683	24.9	24.1	21.4	23.5	24.6	3.22	6.7	14.1	0.32	8.52	33.1	89	3.83	0.163	0.155	6.6	0.44	3184	1137	170	58	C	G	0.4862	332.1	3.47	682	24.1	324.9	3.40	665	24.5	317.0	3.31	649	24.8	308.6	3.23
95	101	649	25.6	24.9	21.9	23.9	25.1	3.31	6.8	14.4	0.32	8.97	33.5	88	3.93	0.164	0.157	6.6	0.45	3212	1137	168	58	C	G	0.5243	340.3	3.38	648	24.9	333.2	3.31	635	25.2	325.4	3.23	622	25.5	317.7	3.16
100	106	619	26.3	25.6	22.3	24.3	25.5	3.39	6.9	14.6	0.32	9.41	33.7	87	4.02	0.165	0.158	6.6	0.45	3236	1137	166	58	C	G	0.5617	347.7	3.29	618	25.6	340.7	3.23	608	25.9	333.0	3.15	597	26.1	325.9	3.09
105	111	592	27.0	26.3	22.8	24.7	25.9	3.47	7.1	14.9	0.32	9.83	34.0	86	4.11	0.166	0.159	6.5	0.46	3258	1137	165	58	C	G	0.5983	354.2	3.20	592	26.3	347.3	3.14	583	26.5	339.7	3.07	574	26.8	333.0	3.01
110	116	568	27.7	27.0	23.2	25.1	26.2	3.54	7.2	15.1	0.32	10.25	34.2	85	4.20	0.167	0.160	6.5	0.47	3277	1137	164	58	C	G	0.6342	360.2	3.11	568	27.0	353.3	3.06	561	27.2	345.8	2.99	553	27.4	339.5	2.94
115	121	546	28.3	27.6	23.5	25.5	26.6	3.61	7.3	15.2	0.32	10.66	34.4	84	4.28	0.168	0.161	6.5	0.48	3295	1137	162	58	C	G	0.6690	365.3	3.03	546	27.6	358.4	2.97	540	27.8	351.0	2.91	534	27.9	345.2	2.86
120	126	526	28.9	28.2	23.9	25.8	26.9	3.68	7.4	15.4	0.32	11.05	34.6	83	4.36	0.169	0.162	6.4	0.48	3312	1137	161	58	C	G	0.7030	369.8	2.94	526	28.2	362.9	2.89	521	28.4	355.5	2.83	516	28.5	350.0	2.79
125	131	508	29.5	28.8	24.2	26.1	27.2	3.74	7.5	15.5	0.32	11.43	34.8	82	4.44	0.170	0.163	6.4	0.49	3328	1137	160	58	C	G	0.7358	373.8	2.86	508	28.8	367.0	2.81	504	28.9	359.6	2.75	499	29.1	354.4	2.71
130	136	492	30.1	29.3	24.5	26.4	27.4	3.80	7.5	15.7	0.32	11.80	34.9	82	4.51	0.171	0.164	6.4	0.50	3344	1137	159	58	C	G	0.7677	377.7	2.78	492	29.3	370.9	2.73	489	29.4	363.6	2.68	485	29.6	358.6	2.64
135	141	477	30.6	29.8	24.8	26.6	27.7	3.86	7.6	15.8	0.32	12.16	35.1	81	4.58	0.172	0.165	6.3	0.50	3359	1137	158	58	C	G	0.7985	380.9	2.71	477	29.8	374.1	2.66	474	30.0	366.8	2.61	471	30.1	362.1	2.57
140	146	463	31.1	30.3	25.1	26.9	27.9	3.92	7.7	15.9	0.32	12.51	35.2	80	4.65	0.173	0.166	6.3	0.51	3374	1137	156	58	C	G	0.8281	383.4	2.63	463	30.3	376.7	2.59	461	30.4	369.4	2.54	458	30.5	364.9	2.51
145	151	451	31.6	30.8	25.3	27.1	28.2	3.97	7.8	15.9	0.32	12.85	35.3	79	4.71	0.174	0.167	6.3	0.51	3389	1137	156	58	C	G	0.8568	386.4	2.57	451	30.8	379.7	2.52	449	30.9	372.4	2.47	446	31.0	368.1	2.44
150	156	439	32.1	31.3	25.6	27.3	28.4	4.02	7.8	16.0	0.33	13.18	35.4	78	4.77	0.175	0.168	6.3	0.52	3404	1137	155	58	C	G	0.8843	388.2	2.49	439	31.3	381.6	2.45	437	31.4	374.2	2.40	435	31.5	370.1	2.38
155	161	429	32.5	31.7	25.8	27.5	28.6	4.07	7.9	16.1	0.33	13.50	35.6	78	4.83	0.175	0.169	6.2	0.52	3419	1137	154	58	C	G	0.9110	390.8	2.43	429	31.7	384.1	2.39	428	31.8	376.9	2.35	426	31.9	372.9	2.32
160	166	419	32.9	32.2	26.0	27.7	28.7	4.12	7.9	16.1	0.33	13.81	35.7	77	4.89	0.176	0.170	6.2	0.53	3434	1137	153	58	C	G	0.9365	392.4	2.37	419	32.2	385.7	2.33	418	32.2	378.5	2.29	416	32.3	374.6	2.26
165	171	410	33.3	32.6	26.2	27.9	28.9	4.16	8.0	16.1	0.33	14.11	35.8	76	4.94	0.177	0.171	6.2	0.53	3449	1137	153	58	C	G	0.9610	394.0	2.31	410	32.6	387.4	2.27	409	32.6	380.1	2.23	407	32.7	376.4	2.21
170	176	402	33.8	33.0	26.4	28.1	29.1	4.21	8.0	16.2	0.33	14.41	36.0	76	4.99	0.178	0.171	6.2	0.54	3464	1137	152	58	C	G	0.9848	395.9	2.25	402	33.0	389.2	2.22	401	33.0	381.9	2.17	400	33.1	378.3	2.15
175	181	394	34.1	33.4	26.6	28.2	29.2	4.25	8.1	16.2	0.33	14.70	36.1	75	5.04	0.178	0.172	6.2	0.54	3480	1137	151	58	C	G	1.0074	396.9	2.20	394	33.4	390.2	2.16	393	33.4	382.9	2.12	392	33.5	379.5	2.10
180	186	387	34.5	33.7	26.8	28.4	29.4	4.29	8.1	16.2	0.33	14.97	36.2	74	5.08	0.179	0.173	6.2	0.55	3496	1137	151	58	C	G	1.0292	398.3	2.15	387	33.7	391.6	2.11	386	33.8	384.3	2.07	385	33.8	380.9	2.05

Table A102. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 19 m Initial Density = 3000 stems/ha																																								
5	11	2953	2.2	2.0	2.6	3.3	3.4	0.75	1.9	0.6	0.76	0.44	1.1	138	1.84	0.565	0.537	0.8	0.01	494	1466	35	13	A	G	0.0005	1.5	0.14	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	2845	4.3	4.0	4.3	5.4	5.8	0.93	2.7	1.5	0.63	0.70	4.1	116	1.87	0.346	0.325	2.0	0.04	826	1466	70	20	A	G	0.0033	9.4	0.60	13	8.5	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	2692	6.1	5.8	6.0	7.5	8.0	1.12	3.2	2.7	0.53	1.02	7.9	111	1.93	0.256	0.240	3.2	0.09	1203	1466	103	27	A	G	0.0096	25.8	1.25	535	8.8	9.0	0.44	4	12.6	0.2	0.01	0	0.0	0.0	0.00
20	26	2510	7.8	7.4	7.6	9.5	10.2	1.30	3.6	4.0	0.47	1.39	12.1	109	2.00	0.211	0.196	4.3	0.14	1581	1466	131	35	B	G	0.0198	49.7	1.94	1246	9.5	32.3	1.26	88	13.1	5.1	0.20	14	14.7	0.9	0.04
25	31	2316	9.4	8.9	9.2	11.2	12.1	1.47	3.9	5.2	0.42	1.79	16.0	108	2.08	0.185	0.172	5.2	0.19	1929	1466	154	41	B	G	0.0339	78.6	2.57	1615	10.4	62.7	2.05	342	13.6	24.5	0.80	112	15.1	8.9	0.29
30	36	2121	10.9	10.3	10.6	12.8	13.8	1.64	4.2	6.3	0.39	2.22	19.6	106	2.17	0.169	0.157	6.0	0.23	2235	1466	171	47	B	G	0.0518	109.9	3.08	1728	11.4	95.7	2.69	650	14.2	57.1	1.60	315	15.6	30.2	0.85
35	41	1935	12.2	11.7	11.9	14.3	15.3	1.79	4.4	7.3	0.37	2.67	22.8	105	2.27	0.159	0.148	6.5	0.27	2493	1466	183	52	C	G	0.0732	141.6	3.48	1709	12.5	128.8	3.17	894	14.9	94.9	2.34	546	16.1	62.4	1.54
40	46	1763	13.6	13.0	13.1	15.6	16.7	1.94	4.6	8.3	0.35	3.13	25.5	103	2.38	0.153	0.143	6.9	0.31	2704	1466	192	55	C	G	0.0977	172.2	3.77	1629	13.6	160.5	3.52	1044	15.6	132.4	2.90	735	16.7	99.1	2.17
45	51	1606	14.8	14.2	14.2	16.7	17.9	2.08	4.8	9.1	0.34	3.60	27.7	102	2.50	0.149	0.139	7.2	0.34	2875	1466	197	58	C	G	0.1250	200.7	3.96	1525	14.7	189.8	3.75	1112	16.4	166.9	3.30	862	17.4	135.6	2.68
50	56	1466	16.0	15.4	15.2	17.8	19.0	2.22	5.0	9.9	0.33	4.08	29.5	101	2.61	0.147	0.137	7.4	0.36	3010	1466	199	60	C	G	0.1547	226.8	4.08	1415	15.7	216.5	3.89	1126	17.2	197.6	3.55	931	18.0	169.5	3.05
55	61	1342	17.1	16.5	16.2	18.7	20.0	2.35	5.2	10.6	0.32	4.56	30.9	99	2.73	0.146	0.137	7.5	0.38	3116	1466	200	61	C	G	0.1864	250.2	4.13	1309	16.8	240.4	3.96	1105	18.0	224.5	3.70	957	18.8	199.8	3.30
60	66	1233	18.2	17.6	17.0	19.5	20.8	2.47	5.4	11.3	0.32	5.05	32.1	98	2.85	0.146	0.137	7.5	0.40	3198	1466	200	62	C	G	0.2198	271.0	4.13	1212	17.8	261.7	3.99	1066	18.8	247.9	3.78	953	19.5	226.2	3.45
65	71	1136	19.2	18.6	17.8	20.3	21.6	2.59	5.6	11.8	0.32	5.53	33.0	97	2.97	0.146	0.137	7.5	0.42	3261	1466	199	63	C	G	0.2545	289.1	4.09	1122	18.7	280.1	3.97	1017	19.6	267.8	3.79	931	20.2	248.9	3.52
70	76	1052	20.2	19.5	18.5	21.0	22.4	2.70	5.7	12.4	0.31	6.01	33.8	95	3.08	0.147	0.138	7.5	0.43	3309	1466	197	63	C	G	0.2901	305.2	4.04	1042	19.7	296.5	3.92	965	20.4	285.3	3.77	900	21.0	268.7	3.55
75	81	977	21.2	20.5	19.2	21.7	23.0	2.81	5.9	12.8	0.31	6.48	34.3	94	3.20	0.148	0.139	7.5	0.44	3346	1466	194	63	C	G	0.3264	318.9	3.95	970	20.6	310.4	3.85	913	21.2	300.1	3.72	863	21.7	285.4	3.54
80	86	912	22.0	21.3	19.8	22.3	23.6	2.91	6.1	13.2	0.31	6.95	34.8	93	3.31	0.149	0.140	7.4	0.45	3374	1466	192	63	C	G	0.3630	331.1	3.87	907	21.4	322.8	3.77	864	22.0	313.1	3.66	825	22.4	300.0	3.50
85	91	854	22.9	22.2	20.4	22.8	24.1	3.00	6.2	13.6	0.31	7.41	35.2	92	3.42	0.150	0.142	7.3	0.46	3396	1466	189	63	C	G	0.3998	341.4	3.77	851	22.2	333.3	3.68	818	22.7	324.1	3.58	787	23.1	312.4	3.45
90	96	803	23.7	23.0	20.9	23.3	24.6	3.09	6.4	14.0	0.31	7.86	35.4	91	3.53	0.151	0.143	7.3	0.47	3412	1466	187	63	C	G	0.4365	350.5	3.66	801	23.0	342.6	3.58	775	23.5	333.6	3.49	751	23.8	323.1	3.38
95	101	757	24.5	23.8	21.4	23.8	25.1	3.18	6.5	14.2	0.31	8.30	35.6	90	3.63	0.153	0.145	7.2	0.47	3425	1466	184	63	C	G	0.4729	358.0	3.56	755	23.8	350.2	3.48	735	24.2	341.5	3.39	716	24.5	332.0	3.30
100	106	717	25.2	24.5	21.9	24.2	25.5	3.26	6.6	14.5	0.31	8.73	35.8	89	3.73	0.154	0.146	7.1	0.48	3435	1466	182	63	C	G	0.5089	364.9	3.45	716	24.5	357.2	3.38	700	24.8	348.8	3.30	684	25.1	340.0	3.22
105	111	681	25.9	25.2	22.3	24.6	25.9	3.34	6.7	14.8	0.31	9.15	35.9	88	3.83	0.156	0.148	7.1	0.48	3443	1466	179	62	C	G	0.5442	370.6	3.35	680	25.2	363.1	3.28	667	25.5	354.8	3.21	655	25.7	346.8	3.13
110	116	649	26.6	25.9	22.7	24.9	26.2	3.42	6.9	15.0	0.31	9.56	36.1	87	3.93	0.157	0.150	7.0	0.49	3450	1466	177	62	C	G	0.5790	375.8	3.25	648	25.9	368.3	3.19	638	26.1	360.2	3.11	628	26.3	352.8	3.05
115	121	620	27.2	26.5	23.1	25.3	26.6	3.49	7.0	15.2	0.31	9.96	36.1	86	4.02	0.159	0.151	6.9	0.50	3456	1466	175	62	C	G	0.6131	380.1	3.15	620	26.5	372.7	3.09	611	26.7	364.7	3.02	602	26.9	357.7	2.97
120	126	594	27.9	27.1	23.4	25.6	26.9	3.56	7.1	15.3	0.31	10.35	36.2	85	4.10	0.160	0.153	6.9	0.50	3462	1466	173	62	C	G	0.6461	383.8	3.05	594	27.1	376.5	3.00	587	27.3	368.6	2.93	579	27.5	362.1	2.88
125	131	571	28.5	27.7	23.7	25.9	27.2	3.62	7.2	15.5	0.31	10.73	36.3	84	4.18	0.162	0.154	6.8	0.51	3467	1466	171	61	C	G	0.6785	387.4	2.97	571	27.7	380.2	2.91	565	27.9	372.4	2.85	559	28.0	366.3	2.80
130	136	550	29.0	28.3	24.1	26.2	27.4	3.69	7.3	15.6	0.31	11.10	36.4	83	4.26	0.163	0.155	6.8	0.51	3473	1466	169	61	C	G	0.7100	390.5	2.88	550	28.3	383.3	2.83	545	28.4	375.5	2.77	540	28.6	369.8	2.73
135	141	530	29.6	28.8	24.3	26.4	27.7	3.75	7.4	15.7	0.32	11.46	36.4	82	4.34	0.164	0.157	6.7	0.51	3479	1466	167	61	C	G	0.7404	392.4	2.79	530	28.8	385.3	2.74	526	28.9	377.6	2.68	521	29.1	372.1	2.65
140	146	513	30.1	29.3	24.6	26.7	27.9	3.81	7.4	15.8	0.32	11.81	36.5	81	4.42	0.165	0.158	6.6	0.52	3486	1466	166	61	C	G	0.7700	395.0	2.71	513	29.3	387.9	2.66	509	29.5	380.2	2.61	506	29.6	375.1	2.58
145	151	497	30.6	29.8	24.9	26.9	28.2	3.86	7.5	15.9	0.32	12.16	36.5	81	4.49	0.167	0.159	6.6	0.52	3492	1466	164	60	C	G	0.7984	396.8	2.63	497	29.8	389.8	2.59	494	29.9	382.2	2.54	491	30.0	377.3	2.50
150	156	482	31.1	30.3	25.1	27.1	28.4	3.91	7.6	15.9	0.32	12.49	36.5	80	4.55	0.168	0.161	6.6	0.53	3500	1466	163	60	C	G	0.8259	398.1	2.56	482	30.3	391.2	2.51	479	30.4	383.5	2.46	476	30.5	378.9	2.43
155	161	469	31.5	30.8	25.3	27.3	28.6	3.96	7.7	16.0	0.32	12.81	36.6	79	4.62	0.169	0.162	6.5	0.53	3507	1466	161	60	C	G	0.8527	399.9	2.49	469	30.8	393.0	2.45	467	30.8	385.4	2.40	464	31.0	380.9	2.37
160	166	457	32.0	31.2	25.6	27.5	28.7	4.01	7.7	16.0	0.32	13.13	36.7	78	4.68	0.170	0.163	6.5	0.53	3516	1466	160	60	C	G	0.8783	401.4	2.42	457	31.2	394.5	2.38	455	31.3	386.9	2.34	453	31.4	382.7	2.31
165	171	446	32.4	31.6	25.8	27.7	28.9	4.06	7.8	16.1	0.32	13.43	36.8	78	4.74	0.171	0.164	6.5	0.54	3525	1466	159	60	C	G	0.9031	402.8	2.36	446	31.6	395.9	2.32	444	31.7	388.4	2.28	442	31.8	384.2	2.25
170	176	435	32.8	32.0	26.0	27.9	29.1	4.11	7.8	16.1	0.32	13.73	36.8	77	4.79	0.172	0.165	6.4	0.54	3534	1466	158	60	C	G	0.9271	403.3	2.30	435	32.0	396.4	2.26	434	32.1	388.9	2.21	432	32.2	384.9	2.19
175	181	426	33.2	32.4	26.2	28.1	29.2	4.15	7.9	16.1	0.33	14.02	36.9	76	4.85	0.173	0.166	6.4	0.55	3544	1466	158	60	C	G	0.9500	404.7	2.24	426	32.4	397.9	2.20	425	32.5	390.3	2.16	423	32.6	386.5	2.14
180	186	417	33.6	32.8	26.3	28.2	29.4	4.19	7.9	16.1	0.33	14.30	37.0	75	4.90	0.173	0.167	6.4	0.55	3555	1466	157	60	C	G	0.9722	405.4	2.18	417	32.8	398.5	2.15	416	32.9	391.0	2.11	414	33.0	387.3	2.09
SI = 19 m Initial Density = 4000 stems/ha																																								
5	11	3925	2.0	1.9	2.5	3.2	3.4	0.74	1.8	0.6	0.75	0.43	1.3	147	1.60	0.492	0.466	0.9	0.01	630	1755	43	17	A	G	0.0004	1.6	0.15	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	3755	4.0	3.7	4.2	5.4	5.8	0.90	2.5	1.5	0.61	0.65	4.7	121	1.63	0.302	0.283	2.3	0.05	1012	1755	84	24	A	G	0.0028	10.4	0.67	6	8.4	0.1	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	3517	5.7	5.4	5.9	7.5	8.0	1.07	3.0	2.7	0.51	0.94	9.0	115	1.69	0.225	0.210	3.8	0.10	1438	1755	123	33	B	G	0.0081	28.5	1.38	481	8.6	7.5	0.36	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	3239	7.3	6.9	7.5	9.4	10.2	1.24	3.4	4.0	0.45	1.27	13.6	113	1.76	0.186	0.173	5.0	0.16	1853	1755	155	41	B	G	0.0168	54.5	2.13	1364	9.2	31.7	1.24	53	13.0	3.0	0.12	6	14.5	0.4	0.02
25	31	2948	8.8	8.3	9.0	11.2	12.1	1.41	3.6	5.1	0.41	1.63	18.0	111	1.84	0.165	0.153	6.1	0.21	2227	1755	180	48	B	G	0.0290	85.6	2.79	1887	10.0	64.9	2.12	282	13.4	19.3	0.63	73	14.9	5.6	0.18
30	36	2664	10.2	9.7	10.4	12.8	13.8	1.56	3.9	6.2	0.38	2.03	21.9	109	1.94	0.152	0.140	6.8	0.26	2545	1755	198	54	C	G	0.0447	119.1	3.34	2067	10.9	100.8	2.83	624	13.9	51.7	1.45	258	15.3	23.5	0.66
35	41	2398	11.6	11.0	11.7	14.2	15.3	1.72	4.1	7.2	0.36	2.44	25.2	107	2.04	0.144	0.133	7.4	0.30	2806	1755	210	58	C	G	0.0636	152.5	3.75	2056	11.9	136.4	3.36	930	14.5	92.1	2.27	510	15.8	54.8	1.35
40	46	2157	12.8	12.3	12.9	15.5	16.7	1.86	4.3	8.2	0.34	2.87	27.9	106	2.15	0.139	0.129	7.8	0.34	3014	1755	218	62	C	G	0.0855	184.4	4.04	1955	13.0	170.1	3.73	1134	15.2	133.1	2.92	741	16.3	93.1	2.04
45	51	1943	14.1	13.5	14.0	16.6	17.9	2.00	4.5	9.0	0.33	3.31	30.2	104	2.27	0.136	0.127	8.0	0.37	3175	1755	222	64	C	G	0.1101	214.0	4.23	1821	14.0	200.9	3.97	1239	15.9	171.0	3.38	909	16.9	132.6	2.62
50	56	1755	15.2	14.6	14.9	17.7	19.0	2.13	4.7	9.8	0.32	3.76	31.9	103	2.39	0.135	0.126	8.2	0.40	3297	1755	223	66	C	G	0.1372	240.8	4.33	1679	15.0	228.7	4.11	1270	16.6	204.4	3.67	1009	17.6	169.6	3.05
55	61	1591	16.3	15.7	15.9	18.6	20.0	2.26	4.9	10.5	0.32	4.22	33.3	101	2.51	0.135	0.126	8.2	0.42	3389	1755	223	67	C	G	0.1663	264.6	4.36	1543	16.0	253.3	4.18	1254	17.4	233.2	3.85	1054	18.2	202.7	3.34
60	66	1448	17.4	16.8	16.7	19.4	20.8	2.38	5.1	11.1	0.31	4.68	34.4	100	2.63	0.135	0.126	8.3	0.43	3456	1755	221	68	C	G	0.1972	285.5	4.35	1416	17.0	274.8	4.19	1212	18.2	257.9	3.93	1059	18.9	231.2	3.52
65	71	1324	18.4	17.8	17.5	20.2	21.6	2.50	5.3	11.7	0.31	5.14	35.3	99	2.75	0.136	0.127	8.2	0.45	3504	1755	218	68	C	G	0.2294	303.7	4.30	1303	18.0	293.6	4.16	1156	18.9	278.9	3.95	1040	19.6	255.7	3.62
70	76	1216	19.4	18.7	18.2	20.9	22.4	2.61	5.5	12.2	0.31	5.60	35.9	97	2.87	0.137	0.128	8.2	0.46	3538	1755	215	68	C	G	0.2627	319.5	4.22	1202	18.9	309.8	4.10	1095	19.7	296.7	3.92	1007	20.3	276.6	3.66
75	81	1122	20.3	19.6	18.9	21.5	23.0	2.71	5.6	12.7	0.30	6.06	36.4	96	2.99	0.139	0.130	8.1	0.47	3561	1755	211	68	C	G	0.2969	333.1	4.13	1112	19.8	323.7	4.01	1033	20.5	311.9	3.87	966	21.0	294.2	3.65
80	86	1040	21.2	20.5	19.5	22.1	23.6	2.81	5.8	13.1	0.30	6.51	36.7	95	3.10	0.140	0.131	8.0	0.48	3575	1755	208	68	C	G	0.3315	344.8	4.03	1033	20.6	335.7	3.92	974	21.2	324.8	3.79	922	21.7	309.2	3.61
85	91	968	22.1	21.4	20.0	22.7	24.1	2.91	6.0	13.5	0.30	6.95	37.0	94	3.21	0.142	0.133	7.9	0.48	3584	1755	204	67	C	G	0.3664	354.7	3.91	963	21.4	345.9	3.82	918	22.0	335.6	3.70	877	22.4	321.7	3.55
90	96	905	22.9	22.2	20.6	23.2	24.6	3.00	6.1	13.8	0.30	7.39	37.2	92	3.32	0.143	0.135	7.8	0.49	3588	1755	200	67	C	G	0.4014	363.3	3.80	901	22.2	354.8	3.71	867	22.7	345.0	3.61	835	23.1	332.6	3.48
95	101	850	23.6	22.9	21.0	23.6	25.1	3.09	6.2	14.1	0.30	7.82	37.3	91	3.43	0.145	0.137	7.7	0.49	3589	1755	197	66	C	G	0.4364	370.9	3.69	847	23.0	362.5	3.60	820	23.4	353.1	3.51	795	23.7	341.9	3.40
100	106	801	24.4	23.7	21.5	24.0	25.5	3.17	6.4	14.4	0.30	8.24	37.4	90	3.53	0.147	0.139	7.6	0.50	3588	1755	194	66	C	G	0.4710	377.3	3.57	799	23.7	369.1	3.49	778	24.1	360.0	3.41	757	24.4	349.8	3.31
105	111	757	25.1	24.4	21.9	24.4	25.9	3.25	6.5	14.7	0.30	8.66	37.4	89	3.63	0.149	0.140	7.5	0.50	3586	1755	190	66	C	G	0.5052	382.4	3.46	756	24.4	374.4	3.38	739	24.7	365.6	3.30	722	25.0	356.3	3.22
110	116	718	25.8	25.0	22.3	24.8	26.2	3.33	6.6	14.9	0.31	9.06	37.4	88	3.73	0.150	0.142	7.4	0.51	3584	1755	187	65	C	G	0.5389	386.9	3.35	717	25.1	379.0	3.28	703	25.4	370.4	3.20	689	25.6	361.8	3.13
115	121	683	26.4	25.7	22.7	25.1	26.6	3.40	6.7	15.1	0.31	9.45	37.4	87	3.83	0.152	0.144	7.3	0.51	3581	1755	184	65	C	G	0.5719	390.6	3.24	682	25.7	382.9	3.17	671	26.0	374.4	3.10	660	26.2	366.5	3.04
120	126	652	27.0	26.3	23.0	25.5	26.9	3.47	6.9	15.2	0.31	9.84	37.5	86	3.92	0.154	0.146	7.2	0.51	3578	1755	182	64	C	G	0.6043	394.0	3.14	652	26.3	386.4	3.08	642	26.6	378.0	3.01	633	26.8	370.7	2.95
125	131	624	27.6	26.9	23.4	25.8	27.2	3.53	7.0	15.4	0.31	10.22	37.5	85	4.00	0.155	0.147	7.1	0.52	3576	1755	179	64	C	G	0.6361	396.9	3.04	624	26.9	389.3	2.98	616	27.1	381.1	2.92	608	27.3	374.2	2.86
130	136	599	28.2	27.5	23.7	26.0	27.4	3.60	7.1	15.5	0.31	10.58	37.5	84	4.09	0.157	0.149	7.1	0.52	3575	1755	177	63	C	G	0.6668	399.4	2.94	599	27.5	391.9	2.89	592	27.7	383.8	2.83	585	27.8	377.3	2.78
135	141	576	28.8	28.0	24.0	26.3	27.7	3.66	7.2	15.6	0.31	10.94	37.4	84	4.17	0.158	0.150	7.0	0.52	3574	1755	175	63	C	G	0.6969	401.4	2.85	576	28.0	394.0	2.80	570	28.2	385.9	2.74	565	28.3	379.9	2.70
140	146	555	29.3	28.5	24.2	26.6	27.9	3.72	7.2	15.7	0.31	11.29	37.4	83	4.24	0.160	0.152	6.9	0.53	3573	1755	173	63	C	G	0.7259	402.9	2.77	555	28.5	395.6	2.72	550	28.7	387.6	2.66	545	28.9	381.8	2.62
145	151	537	29.8	29.1	24.5	26.8	28.2	3.77	7.3	15.8	0.31	11.63	37.5	82	4.32	0.161	0.153	6.9	0.53	3574	1755	171	62	C	G	0.7542	405.0	2.69	537	29.1	397.7	2.64	533	29.2	389.8	2.59	529	29.3	384.4	2.55
150	156	519	30.3	29.5	24.7	27.0	28.4	3.83	7.4	15.9	0.32	11.96	37.4	81	4.39	0.163	0.155	6.8	0.53	3576	1755	169	62	C	G	0.7817	405.7	2.61	519	29.5	398.4	2.56	516	29.6	390.6	2.51	512	29.8	385.4	2.48
155	161	504	30.8	30.0	25.0	27.2	28.6	3.88	7.5	15.9	0.32	12.28	37.5	80	4.45	0.164	0.156	6.8	0.54	3578	1755	168	62	C	G	0.8081	407.3	2.54	504	30.0	400.1	2.49	501	30.1	392.3	2.44	498	30.2	387.4	2.41
160	166	489	31.2	30.5	25.2	27.4	28.7	3.93	7.5	16.0	0.32	12.60	37.4	79	4.52	0.165	0.157	6.7	0.54	3581	1755	166	62	C	G	0.8337	407.7	2.46	489	30.5	400.6	2.42	487	30.5	392.8	2.37	484	30.7	388.1	2.34
165	171	476	31.7	30.9	25.4	27.6	28.9	3.98	7.6	16.0	0.32	12.90	37.5	79	4.58	0.166	0.158	6.7	0.54	3585	1755	165	61	C	G	0.8586	408.7	2.40	476	30.9	401.6	2.35	474	31.0	393.8	2.31	471	31.1	389.3	2.28
170	176	464	32.1	31.3	25.6	27.8	29.1	4.03	7.7	16.0	0.32	13.20	37.5	78	4.64	0.167	0.160	6.6	0.55	3590	1755	164	61	C	G	0.8823	409.4	2.33	464	31.3	402.4	2.29	462	31.4	394.6	2.25	460	31.5	390.3	2.22
175	181	453	32.5	31.7	25.8	27.9	29.2	4.07	7.7	16.1	0.32	13.49	37.6	77	4.70	0.168	0.161	6.6	0.55	3595	1755	163	61	C	G	0.9055	410.2	2.27	453	31.7	403.1	2.23	451	31.8	395.4	2.19	449	31.9	391.3	2.17
180	186	442	32.9	32.1	26.0	28.1	29.4	4.11	7.8	16.1	0.32	13.78	37.6	76	4.76	0.169	0.162	6.5	0.55	3602	1755	161	61	C	G	0.9276	410.0	2.21	442	32.1	403.0	2.17	441	32.2	395.4	2.13	439	32.3	391.3	2.11

Table A103. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 19 m Initial Density = 5000 stems/ha																																								
5	11	4894	1.9	1.8	2.5	3.2	3.4	0.73	1.7	0.6	0.73	0.42	1.4	153	1.43	0.441	0.417	1.0	0.02	762	2018	50	21	A	G	0.0003	1.7	0.16	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	4655	3.7	3.5	4.1	5.4	5.8	0.88	2.4	1.6	0.59	0.62	5.1	125	1.47	0.272	0.254	2.7	0.06	1187	2018	98	29	A	G	0.0024	11.2	0.72	2	8.3	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	4323	5.4	5.1	5.8	7.5	8.0	1.04	2.8	2.7	0.50	0.88	9.9	119	1.52	0.204	0.189	4.3	0.11	1652	2018	141	38	B	G	0.0071	30.6	1.48	416	8.4	6.1	0.30	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	3942	6.9	6.5	7.4	9.4	10.2	1.20	3.2	3.9	0.44	1.19	14.9	115	1.59	0.169	0.157	5.7	0.17	2096	2018	177	47	B	G	0.0148	58.3	2.27	1423	9.0	30.5	1.19	32	12.8	1.7	0.07	3	14.3	0.2	0.01
25	31	3551	8.4	7.9	8.8	11.1	12.1	1.36	3.4	5.1	0.40	1.52	19.6	113	1.68	0.151	0.139	6.8	0.23	2487	2018	203	54	C	G	0.0257	91.2	2.98	2097	9.7	65.7	2.14	226	13.2	15.0	0.49	47	14.8	3.5	0.11
30	36	3175	9.7	9.3	10.2	12.7	13.8	1.51	3.7	6.2	0.37	1.89	23.7	111	1.77	0.139	0.129	7.6	0.29	2813	2018	222	60	C	G	0.0397	126.2	3.54	2352	10.6	104.0	2.92	579	13.7	45.9	1.29	207	15.2	18.2	0.51
35	41	2830	11.0	10.5	11.5	14.1	15.3	1.66	3.9	7.2	0.35	2.28	27.1	109	1.88	0.133	0.123	8.2	0.33	3073	2018	234	64	C	G	0.0569	160.9	3.96	2358	11.5	141.7	3.49	932	14.2	87.7	2.16	463	15.6	47.6	1.17
40	46	2522	12.3	11.7	12.6	15.4	16.7	1.80	4.1	8.1	0.33	2.68	29.9	108	1.99	0.129	0.119	8.5	0.37	3274	2018	240	68	C	G	0.0768	193.8	4.25	2245	12.5	176.9	3.88	1187	14.8	131.4	2.88	723	16.1	86.3	1.89
45	51	2252	13.5	12.9	13.7	16.6	17.9	1.93	4.3	8.9	0.32	3.10	32.2	106	2.11	0.127	0.118	8.8	0.40	3425	2018	243	70	C	G	0.0995	224.1	4.43	2085	13.5	209.0	4.13	1328	15.5	172.1	3.40	927	16.6	127.8	2.52
50	56	2018	14.6	14.0	14.7	17.6	19.0	2.07	4.5	9.7	0.31	3.53	33.9	104	2.23	0.127	0.117	8.9	0.42	3537	2018	243	71	D	G	0.1245	251.3	4.52	1915	14.5	237.5	4.27	1381	16.2	207.9	3.74	1057	17.2	167.2	3.01
55	61	1816	15.7	15.1	15.6	18.5	20.0	2.19	4.7	10.4	0.31	3.97	35.3	103	2.35	0.127	0.117	8.9	0.44	3616	2018	241	72	D	G	0.1516	275.3	4.54	1750	15.5	262.6	4.33	1374	16.9	238.5	3.93	1122	17.8	202.5	3.34
60	66	1642	16.8	16.1	16.4	19.4	20.8	2.31	4.9	11.0	0.30	4.41	36.3	101	2.47	0.127	0.118	8.9	0.46	3670	2018	238	72	D	G	0.1805	296.3	4.51	1599	16.4	284.5	4.33	1332	17.7	264.4	4.03	1139	18.5	233.1	3.55
65	71	1493	17.8	17.1	17.2	20.1	21.6	2.42	5.1	11.6	0.30	4.85	37.0	100	2.59	0.129	0.120	8.8	0.47	3706	2018	234	72	D	G	0.2108	314.7	4.46	1465	17.4	303.5	4.30	1273	18.4	286.4	4.05	1126	19.2	259.2	3.67
70	76	1364	18.7	18.1	17.9	20.8	22.4	2.53	5.3	12.1	0.30	5.29	37.6	99	2.71	0.130	0.121	8.7	0.48	3727	2018	230	72	D	G	0.2422	330.4	4.37	1345	18.3	319.8	4.23	1206	19.2	304.9	4.03	1094	19.8	281.3	3.72
75	81	1252	19.7	19.0	18.6	21.5	23.0	2.64	5.4	12.6	0.30	5.73	38.0	97	2.83	0.132	0.123	8.6	0.49	3738	2018	225	72	D	G	0.2746	343.8	4.26	1239	19.1	333.6	4.14	1136	19.9	320.3	3.97	1051	20.5	299.8	3.72
80	86	1155	20.5	19.9	19.2	22.0	23.6	2.74	5.6	13.0	0.30	6.17	38.3	96	2.94	0.134	0.125	8.4	0.50	3741	2018	221	71	D	G	0.3075	355.2	4.15	1146	20.0	345.5	4.03	1069	20.7	333.3	3.89	1003	21.2	315.3	3.68
85	91	1071	21.4	20.7	19.7	22.6	24.1	2.83	5.7	13.4	0.30	6.60	38.5	95	3.06	0.135	0.127	8.3	0.50	3739	2018	216	71	D	G	0.3409	365.1	4.03	1064	20.8	355.7	3.92	1006	21.4	344.4	3.80	955	21.9	328.5	3.62
90	96	997	22.2	21.5	20.2	23.1	24.6	2.92	5.9	13.7	0.30	7.03	38.6	94	3.17	0.137	0.129	8.2	0.51	3734	2018	212	70	D	G	0.3744	373.3	3.90	992	21.6	364.2	3.81	948	22.1	353.6	3.70	907	22.5	339.4	3.55
95	101	933	23.0	22.3	20.7	23.5	25.1	3.01	6.0	14.0	0.30	7.45	38.6	93	3.27	0.139	0.131	8.1	0.51	3725	2018	208	69	C	G	0.4080	380.7	3.78	929	22.3	371.8	3.69	895	22.8	361.7	3.59	863	23.2	349.0	3.47
100	106	875	23.7	23.0	21.2	23.9	25.5	3.09	6.2	14.3	0.30	7.86	38.6	92	3.38	0.141	0.133	7.9	0.51	3716	2018	204	69	C	G	0.4414	386.2	3.66	872	23.1	377.6	3.57	845	23.5	367.9	3.48	819	23.8	356.3	3.37
105	111	825	24.4	23.7	21.6	24.3	25.9	3.17	6.3	14.5	0.30	8.26	38.6	90	3.48	0.143	0.135	7.8	0.52	3706	2018	200	68	C	G	0.4745	391.5	3.54	823	23.7	383.0	3.46	801	24.1	373.6	3.38	780	24.4	363.1	3.28
110	116	780	25.1	24.4	22.0	24.7	26.2	3.25	6.4	14.8	0.30	8.66	38.6	89	3.58	0.145	0.136	7.7	0.52	3696	2018	196	68	C	G	0.5072	395.6	3.42	779	24.4	387.3	3.35	761	24.7	378.2	3.27	744	25.0	368.6	3.19
115	121	740	25.8	25.0	22.4	25.0	26.6	3.32	6.6	15.0	0.30	9.05	38.5	88	3.68	0.147	0.138	7.6	0.52	3686	2018	193	67	C	G	0.5395	399.2	3.31	739	25.0	391.0	3.24	725	25.3	382.1	3.17	711	25.6	373.3	3.09
120	126	704	26.4	25.6	22.7	25.4	26.9	3.39	6.7	15.1	0.30	9.43	38.5	87	3.77	0.149	0.140	7.5	0.52	3676	2018	190	66	C	G	0.5710	402.0	3.20	703	25.7	394.0	3.14	692	25.9	385.3	3.07	680	26.1	377.1	3.00
125	131	672	27.0	26.2	23.0	25.6	27.2	3.46	6.8	15.3	0.30	9.80	38.4	86	3.86	0.150	0.142	7.4	0.53	3668	2018	187	66	C	G	0.6019	404.5	3.10	671	26.3	396.6	3.04	662	26.5	388.1	2.97	652	26.7	380.5	2.91
130	136	643	27.6	26.8	23.3	25.9	27.4	3.53	6.9	15.4	0.31	10.16	38.4	86	3.94	0.152	0.144	7.3	0.53	3660	2018	184	65	C	G	0.6322	406.5	3.00	643	26.8	398.7	2.94	635	27.0	390.3	2.88	626	27.2	383.2	2.83
135	141	617	28.1	27.4	23.6	26.2	27.7	3.59	7.0	15.5	0.31	10.52	38.3	85	4.03	0.154	0.145	7.2	0.53	3653	2018	181	65	C	G	0.6616	408.2	2.90	617	27.4	400.5	2.85	610	27.6	392.2	2.79	603	27.7	385.6	2.74
140	146	594	28.6	27.9	23.9	26.4	27.9	3.65	7.1	15.6	0.31	10.86	38.3	84	4.10	0.155	0.147	7.2	0.53	3648	2018	179	65	C	G	0.6904	410.1	2.82	594	27.9	402.5	2.76	588	28.1	394.2	2.71	582	28.2	388.0	2.66
145	151	572	29.2	28.4	24.2	26.7	28.2	3.70	7.2	15.7	0.31	11.20	38.2	83	4.18	0.157	0.149	7.1	0.54	3643	2018	177	64	C	G	0.7182	410.8	2.73	572	28.4	403.3	2.68	567	28.6	395.2	2.62	562	28.7	389.3	2.58
150	156	553	29.7	28.9	24.4	26.9	28.4	3.76	7.2	15.8	0.31	11.53	38.2	82	4.25	0.158	0.150	7.0	0.54	3640	2018	175	64	C	G	0.7454	412.2	2.65	553	28.9	404.7	2.60	549	29.0	396.7	2.55	544	29.2	391.0	2.51
155	161	535	30.1	29.4	24.6	27.1	28.6	3.81	7.3	15.9	0.31	11.85	38.2	81	4.32	0.160	0.151	7.0	0.54	3638	2018	173	63	C	G	0.7716	412.8	2.57	535	29.4	405.4	2.52	531	29.5	397.4	2.47	527	29.6	392.1	2.44
160	166	518	30.6	29.8	24.9	27.3	28.7	3.86	7.4	15.9	0.31	12.16	38.1	80	4.39	0.161	0.153	6.9	0.54	3636	2018	171	63	C	G	0.7971	412.9	2.49	518	29.8	405.5	2.45	515	29.9	397.6	2.40	511	30.1	392.5	2.37
165	171	503	31.0	30.3	25.1	27.5	28.9	3.91	7.5	15.9	0.32	12.47	38.1	80	4.46	0.162	0.154	6.8	0.55	3636	2018	169	63	C	G	0.8217	413.3	2.42	503	30.3	406.0	2.38	500	30.4	398.1	2.33	497	30.5	393.2	2.30
170	176	490	31.5	30.7	25.3	27.6	29.1	3.96	7.5	16.0	0.32	12.77	38.1	79	4.52	0.163	0.155	6.8	0.55	3637	2018	168	63	C	G	0.8455	414.3	2.36	490	30.7	407.1	2.32	488	30.8	399.2	2.27	485	30.9	394.5	2.25
175	181	477	31.9	31.1	25.4	27.8	29.2	4.00	7.6	16.0	0.32	13.06	38.1	78	4.58	0.165	0.157	6.7	0.55	3639	2018	167	62	C	G	0.8686	414.3	2.29	477	31.1	407.1	2.25	475	31.2	399.2	2.21	472	31.3	394.7	2.19
180	186	465	32.3	31.5	25.6	28.0	29.4	4.05	7.7	16.0	0.32	13.34	38.1	77	4.64	0.166	0.158	6.7	0.55	3642	2018	165	62	C	G	0.8908	414.2	2.23	465	31.5	407.0	2.19	463	31.6	399.2	2.15	461	31.7	394.9	2.13
SI = 19 m Initial Density = 6000 stems/ha																																								
5	11	5860	1.8	1.7	2.5	3.2	3.4	0.72	1.7	0.6	0.72	0.41	1.5	159	1.31	0.404	0.381	1.1	0.02	891	2264	57	24	A	G	0.0003	1.9	0.18	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	5547	3.6	3.3	4.1	5.4	5.8	0.86	2.3	1.6	0.58	0.60	5.6	128	1.34	0.250	0.233	2.9	0.06	1354	2264	110	33	B	G	0.0021	11.9	0.76	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	5115	5.2	4.9	5.7	7.5	8.0	1.02	2.7	2.7	0.49	0.84	10.7	121	1.40	0.188	0.174	4.7	0.12	1850	2264	158	43	B	G	0.0063	32.4	1.57	352	8.3	4.9	0.24	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	4626	6.6	6.3	7.3	9.4	10.2	1.17	3.0	3.9	0.43	1.12	16.0	118	1.47	0.157	0.145	6.2	0.19	2317	2264	196	52	C	G	0.0133	61.4	2.40	1440	8.8	29.0	1.13	19	12.8	1.0	0.04	0	0.0	0.0	0.00
25	31	4131	8.0	7.6	8.7	11.1	12.1	1.32	3.3	5.0	0.39	1.44	21.0	115	1.56	0.140	0.129	7.4	0.25	2721	2264	224	59	C	G	0.0232	95.7	3.12	2259	9.5	65.6	2.14	179	13.1	11.6	0.38	30	14.7	2.2	0.07
30	36	3663	9.4	8.9	10.1	12.7	13.8	1.47	3.5	6.1	0.36	1.78	25.2	113	1.65	0.130	0.120	8.2	0.31	3050	2264	243	65	C	G	0.0360	131.9	3.70	2595	10.3	105.9	2.97	526	13.5	40.4	1.13	164	15.0	14.0	0.39
35	41	3238	10.6	10.1	11.3	14.1	15.3	1.61	3.7	7.1	0.34	2.15	28.8	111	1.76	0.125	0.115	8.8	0.35	3307	2264	254	70	C	G	0.0518	167.6	4.12	2625	11.2	145.3	3.58	913	14.0	82.5	2.03	413	15.4	41.0	1.01
40	46	2865	11.9	11.3	12.5	15.4	16.7	1.75	3.9	8.0	0.32	2.54	31.6	109	1.87	0.122	0.112	9.2	0.39	3501	2264	260	73	D	G	0.0703	201.3	4.41	2505	12.1	182.0	3.99	1213	14.6	128.3	2.81	692	15.9	79.4	1.74
45	51	2541	13.0	12.5	13.5	16.5	17.9	1.88	4.1	8.8	0.31	2.94	33.8	107	1.98	0.120	0.111	9.4	0.42	3643	2264	262	75	D	G	0.0913	232.1	4.58	2325	13.1	215.0	4.25	1391	15.2	171.4	3.39	926	16.4	122.0	2.41
50	56	2264	14.1	13.6	14.5	17.5	19.0	2.01	4.3	9.6	0.31	3.35	35.6	106	2.10	0.120	0.111	9.5	0.45	3743	2264	261	76	D	G	0.1148	259.8	4.67	2130	14.1	244.4	4.39	1468	15.9	209.4	3.76	1085	16.9	163.5	2.94
55	61	2026	15.2	14.6	15.4	18.4	20.0	2.13	4.5	10.2	0.30	3.77	36.9	104	2.22	0.120	0.111	9.5	0.47	3811	2264	258	76	D	G	0.1402	284.0	4.68	1941	15.0	270.0	4.45	1473	16.6	241.8	3.99	1171	17.5	200.8	3.31
60	66	1823	16.3	15.6	16.2	19.3	20.8	2.25	4.7	10.9	0.30	4.19	37.8	103	2.34	0.121	0.112	9.4	0.48	3854	2264	254	76	D	G	0.1674	305.1	4.65	1768	16.0	292.2	4.45	1436	17.3	269.0	4.10	1203	18.1	233.3	3.55
65	71	1650	17.3	16.6	17.0	20.0	21.6	2.36	4.9	11.5	0.30	4.62	38.6	101	2.46	0.123	0.114	9.3	0.49	3879	2264	249	76	D	G	0.1961	323.5	4.58	1613	16.9	311.4	4.41	1375	18.0	291.9	4.13	1197	18.8	260.9	3.69
70	76	1501	18.2	17.6	17.7	20.7	22.4	2.47	5.1	12.0	0.29	5.04	39.1	100	2.58	0.124	0.115	9.2	0.50	3889	2264	243	76	D	G	0.2259	339.1	4.48	1476	17.8	327.7	4.33	1303	18.8	310.9	4.11	1167	19.4	284.1	3.76
75	81	1373	19.1	18.5	18.3	21.4	23.0	2.58	5.3	12.4	0.29	5.47	39.4	98	2.70	0.126	0.117	9.0	0.51	3890	2264	238	75	D	G	0.2567	352.5	4.37	1356	18.6	341.7	4.24	1229	19.5	326.9	4.05	1124	20.1	303.5	3.76
80	86	1262	20.0	19.3	18.9	21.9	23.6	2.68	5.4	12.9	0.29	5.90	39.6	97	2.81	0.128	0.119	8.9	0.51	3884	2264	233	74	D	G	0.2883	363.8	4.25	1250	19.5	353.4	4.13	1155	20.2	340.0	3.97	1075	20.7	319.7	3.73
85	91	1166	20.8	20.2	19.5	22.5	24.1	2.77	5.6	13.3	0.29	6.32	39.7	96	2.93	0.130	0.121	8.7	0.52	3873	2264	227	74	D	G	0.3202	373.4	4.12	1157	20.3	363.4	4.01	1086	20.9	351.2	3.87	1023	21.4	333.2	3.68
90	96	1082	21.6	20.9	20.0	23.0	24.6	2.86	5.7	13.6	0.29	6.73	39.8	95	3.04	0.132	0.123	8.5	0.52	3859	2264	222	73	D	G	0.3525	381.4	3.99	1076	21.0	371.8	3.89	1021	21.6	360.4	3.77	972	22.0	344.5	3.60
95	101	1009	22.4	21.7	20.4	23.4	25.1	2.95	5.9	13.9	0.29	7.14	39.8	94	3.15	0.134	0.126	8.4	0.52	3843	2264	217	72	D	G	0.3848	388.3	3.86	1004	21.8	379.0	3.77	962	22.3	368.2	3.66	923	22.7	354.0	3.52
100	106	945	23.1	22.4	20.9	23.8	25.5	3.03	6.0	14.2	0.29	7.54	39.7	93	3.25	0.136	0.128	8.3	0.53	3826	2264	213	71	D	G	0.4171	394.2	3.73	942	22.5	385.1	3.65	908	22.9	374.8	3.55	877	23.3	362.1	3.43
105	111	888	23.8	23.1	21.3	24.2	25.9	3.11	6.2	14.4	0.30	7.94	39.7	91	3.36	0.138	0.130	8.1	0.53	3809	2264	208	71	D	G	0.4492	398.9	3.61	885	23.2	390.1	3.53	859	23.6	380.2	3.44	833	23.9	368.6	3.33
110	116	837	24.5	23.8	21.7	24.6	26.2	3.19	6.3	14.7	0.30	8.33	39.5	90	3.46	0.141	0.132	8.0	0.53	3792	2264	204	70	C	G	0.4810	402.6	3.48	835	23.9	393.9	3.41	814	24.2	384.4	3.32	793	24.5	373.8	3.23
115	121	792	25.2	24.5	22.1	24.9	26.6	3.26	6.4	14.9	0.30	8.71	39.4	89	3.55	0.142	0.134	7.9	0.53	3776	2264	200	69	C	G	0.5124	405.8	3.36	791	24.5	397.3	3.29	773	24.8	388.0	3.22	756	25.1	378.3	3.14
120	126	752	25.8	25.1	22.4	25.3	26.9	3.33	6.5	15.0	0.30	9.08	39.3	88	3.65	0.144	0.136	7.7	0.53	3761	2264	197	68	C	G	0.5432	408.5	3.25	751	25.1	400.2	3.19	737	25.4	391.1	3.11	722	25.6	382.1	3.04
125	131	717	26.4	25.7	22.7	25.5	27.2	3.40	6.6	15.2	0.30	9.45	39.3	87	3.73	0.146	0.137	7.6	0.54	3747	2264	194	68	C	G	0.5735	411.2	3.15	716	25.7	403.0	3.08	704	26.0	394.1	3.02	692	26.2	385.8	2.95
130	136	684	27.0	26.3	23.0	25.8	27.4	3.46	6.7	15.3	0.30	9.81	39.1	86	3.82	0.148	0.139	7.5	0.54	3734	2264	190	67	C	G	0.6031	412.5	3.04	683	26.3	404.5	2.98	674	26.5	395.8	2.92	663	26.7	388.0	2.86
135	141	655	27.6	26.8	23.3	26.1	27.7	3.52	6.8	15.5	0.30	10.16	39.0	85	3.91	0.150	0.141	7.4	0.54	3723	2264	187	67	C	G	0.6321	414.0	2.94	655	26.8	406.1	2.89	646	27.0	397.4	2.83	638	27.2	390.3	2.78
140	146	629	28.1	27.3	23.6	26.3	27.9	3.58	6.9	15.6	0.31	10.50	39.0	85	3.99	0.151	0.143	7.4	0.54	3712	2264	185	66	C	G	0.6603	415.3	2.85	629	27.3	407.5	2.80	622	27.5	399.0	2.74	614	27.7	392.2	2.69
145	151	605	28.6	27.9	23.9	26.6	28.2	3.64	7.0	15.7	0.31	10.83	38.9	84	4.07	0.153	0.144	7.3	0.54	3704	2264	182	66	C	G	0.6878	416.1	2.76	605	27.9	408.4	2.71	599	28.0	400.0	2.66	592	28.2	393.6	2.61
150	156	583	29.1	28.4	24.1	26.8	28.4	3.70	7.1	15.7	0.31	11.16	38.8	83	4.14	0.155	0.146	7.2	0.54	3696	2264	180	65	C	G	0.7146	416.6	2.68	583	28.4	408.9	2.63	578	28.5	400.7	2.57	572	28.7	394.6	2.54
155	161	563	29.6	28.8	24.3	27.0	28.6	3.75	7.2	15.8	0.31	11.48	38.7	82	4.21	0.156	0.148	7.1	0.55	3690	2264	178	65	C	G	0.7405	416.9	2.60	563	28.8	409.3	2.55	559	29.0	401.2	2.50	554	29.1	395.4	2.46
160	166	545	30.1	29.3	24.6	27.2	28.7	3.80	7.3	15.8	0.31	11.79	38.7	81	4.28	0.158	0.149	7.1	0.55	3685	2264	176	64	C	G	0.7657	417.3	2.52	545	29.3	409.8	2.47	541	29.4	401.7	2.43	537	29.5	396.3	2.39
165	171	529	30.5	29.7	24.8	27.4	28.9	3.85	7.4	15.9	0.31	12.10	38.6	80	4.35	0.159	0.150	7.0	0.55	3681	2264	174	64	C	G	0.7902	418.0	2.45	529	29.7	410.6	2.41	526	29.8	402.5	2.36	522	30.0	397.3	2.33
170	176	513	30.9	30.2	25.0	27.5	29.1	3.90	7.4	15.9	0.32	12.39	38.6	80	4.42	0.160	0.152	6.9	0.55	3679	2264	172	64	C	G	0.8138	417.5	2.38	513	30.2	410.1	2.33	510	30.3	402.1	2.29	507	30.4	397.1	2.26
175	181	499	31.4	30.6	25.1	27.7	29.2	3.94	7.5	15.9	0.32	12.68	38.5	79	4.48	0.162	0.153	6.9	0.55	3678	2264	170	63	C	G	0.8367	417.5	2.31	499	30.6	410.2	2.27	497	30.7	402.3	2.23	493	30.8	397.4	2.20
180	186	486	31.8	31.0	25.3	27.9	29.4	3.99	7.5	16.0	0.32	12.97	38.5	78	4.54	0.163	0.154	6.8	0.55	3677	2264	169	63	C	G	0.8588	417.4	2.25	486	31.0	410.1	2.21	484	31.1	402.2	2.17	481	31.2	397.6	2.14

Table A104. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume) N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	Util. std. = 8/6 N	D	V/ha	Mai	Util. std. = 13/7 N	D	V/ha	Mai	Util. std = 15/10 N	D	V/ha	Mai
		SI = 19 m Initial Density = 7000 stems/ha																																						
5	11	6824	1.7	1.6	2.4	3.2	3.4	0.72	1.6	0.6	0.71	0.41	1.6	165	1.21	0.375	0.353	1.2	0.02	1017	2496	64	28	A	G	0.0003	1.9	0.18	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	6432	3.4	3.2	4.0	5.4	5.8	0.85	2.2	1.6	0.57	0.58	5.9	131	1.25	0.232	0.216	3.2	0.07	1513	2496	122	37	B	G	0.0019	12.5	0.80	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	5895	5.0	4.7	5.6	7.4	8.0	1.00	2.6	2.7	0.48	0.80	11.4	124	1.30	0.175	0.162	5.1	0.13	2038	2496	173	47	B	G	0.0058	33.9	1.64	294	8.3	4.0	0.19	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	5295	6.4	6.0	7.2	9.3	10.2	1.14	2.9	3.9	0.42	1.07	17.0	120	1.37	0.147	0.135	6.7	0.20	2523	2496	214	57	C	G	0.0121	64.1	2.50	1430	8.7	27.3	1.06	12	12.7	0.6	0.02	0	0.0	0.0	0.00
25	31	4693	7.8	7.3	8.6	11.1	12.1	1.29	3.1	5.0	0.38	1.37	22.2	117	1.46	0.132	0.121	8.0	0.27	2935	2496	243	64	C	G	0.0212	99.5	3.25	2382	9.3	65.0	2.12	140	13.0	8.9	0.29	19	14.6	1.4	0.05
30	36	4132	9.1	8.6	9.9	12.7	13.8	1.43	3.4	6.0	0.35	1.70	26.6	114	1.56	0.123	0.113	8.8	0.33	3265	2496	262	70	D	G	0.0331	136.7	3.84	2804	10.1	107.0	3.00	472	13.4	35.4	0.99	129	14.9	10.8	0.30
35	41	3629	10.3	9.8	11.2	14.1	15.3	1.57	3.6	7.0	0.33	2.05	30.2	112	1.66	0.118	0.108	9.4	0.37	3517	2496	273	74	D	G	0.0477	173.2	4.26	2864	11.0	147.9	3.64	881	13.9	77.1	1.90	364	15.3	35.2	0.87
40	46	3191	11.5	11.0	12.3	15.3	16.7	1.71	3.8	7.9	0.32	2.42	33.1	110	1.77	0.116	0.106	9.8	0.41	3704	2496	278	77	D	G	0.0650	207.5	4.55	2743	11.9	185.8	4.07	1220	14.4	124.3	2.72	654	15.7	72.6	1.59
45	51	2816	12.6	12.1	13.3	16.4	17.9	1.84	4.0	8.7	0.31	2.80	35.3	108	1.88	0.115	0.105	9.9	0.44	3836	2496	279	79	D	G	0.0848	238.8	4.72	2547	12.8	219.8	4.34	1435	15.0	169.6	3.35	912	16.2	115.8	2.29
50	56	2496	13.7	13.2	14.3	17.5	19.0	1.97	4.2	9.5	0.30	3.20	37.0	107	2.00	0.115	0.105	10.0	0.47	3926	2496	276	80	D	G	0.1068	266.6	4.79	2330	13.7	249.8	4.49	1536	15.6	209.5	3.77	1097	16.7	158.8	2.85
55	61	2224	14.8	14.2	15.2	18.4	20.0	2.09	4.4	10.1	0.30	3.60	38.3	105	2.12	0.115	0.106	10.0	0.48	3983	2496	272	80	D	G	0.1309	291.1	4.80	2119	14.6	275.8	4.55	1556	16.3	243.5	4.02	1206	17.3	198.0	3.27
60	66	1993	15.8	15.2	16.0	19.2	20.8	2.20	4.6	10.8	0.29	4.01	39.2	104	2.24	0.117	0.107	9.9	0.50	4016	2496	267	80	D	G	0.1566	312.2	4.76	1925	15.6	298.2	4.54	1525	17.0	272.0	4.14	1252	17.9	232.0	3.53
65	71	1797	16.8	16.2	16.7	20.0	21.6	2.31	4.8	11.3	0.29	4.42	39.9	102	2.36	0.118	0.109	9.7	0.51	4031	2496	261	79	D	G	0.1840	330.6	4.68	1752	16.5	317.6	4.50	1465	17.7	295.7	4.19	1255	18.5	261.1	3.70
70	76	1629	17.7	17.1	17.4	20.7	22.4	2.42	4.9	11.9	0.29	4.84	40.3	101	2.48	0.120	0.111	9.6	0.52	4033	2496	255	79	D	G	0.2125	346.1	4.58	1598	17.3	333.9	4.41	1390	18.4	315.3	4.17	1229	19.1	285.3	3.77
75	81	1486	18.6	18.0	18.1	21.3	23.0	2.52	5.1	12.3	0.29	5.25	40.6	99	2.59	0.122	0.113	9.4	0.52	4025	2496	249	78	D	G	0.2420	359.6	4.46	1465	18.2	348.0	4.32	1312	19.1	331.8	4.11	1188	19.8	305.8	3.79
80	86	1362	19.5	18.9	18.7	21.9	23.6	2.62	5.3	12.8	0.29	5.66	40.7	98	2.71	0.124	0.115	9.2	0.53	4010	2496	243	77	D	G	0.2722	370.7	4.33	1347	19.0	359.8	4.20	1233	19.8	345.2	4.03	1138	20.4	322.6	3.77
85	91	1255	20.3	19.7	19.2	22.4	24.1	2.72	5.4	13.1	0.29	6.07	40.8	97	2.82	0.126	0.117	9.0	0.53	3992	2496	237	76	D	G	0.3029	380.2	4.19	1244	19.8	369.7	4.08	1158	20.5	356.5	3.93	1084	21.0	336.6	3.71
90	96	1162	21.1	20.5	19.7	22.9	24.6	2.81	5.6	13.5	0.29	6.48	40.8	96	2.93	0.128	0.119	8.9	0.54	3970	2496	231	75	D	G	0.3341	388.2	4.06	1154	20.6	378.1	3.95	1088	21.2	365.8	3.82	1030	21.7	348.3	3.64
95	101	1081	21.9	21.2	20.2	23.3	25.1	2.89	5.7	13.8	0.29	6.88	40.8	95	3.04	0.130	0.121	8.7	0.54	3947	2496	226	74	D	G	0.3654	395.0	3.93	1075	21.3	385.2	3.83	1024	21.9	373.7	3.71	978	22.3	358.1	3.56
100	106	1009	22.6	22.0	20.6	23.8	25.5	2.98	5.9	14.1	0.29	7.27	40.6	93	3.15	0.132	0.123	8.5	0.54	3924	2496	221	73	D	G	0.3966	400.2	3.79	1005	22.0	390.7	3.70	965	22.5	379.9	3.60	928	22.9	365.9	3.46
105	111	946	23.4	22.7	21.1	24.1	25.9	3.06	6.0	14.3	0.29	7.66	40.5	92	3.25	0.135	0.126	8.4	0.54	3901	2496	216	72	D	G	0.4278	404.7	3.66	943	22.7	395.5	3.57	911	23.1	385.1	3.48	881	23.5	372.4	3.37
110	116	891	24.0	23.3	21.5	24.5	26.2	3.13	6.2	14.6	0.29	8.04	40.4	91	3.35	0.137	0.128	8.2	0.54	3878	2496	211	72	D	G	0.4587	408.7	3.53	889	23.4	399.7	3.46	863	23.8	389.7	3.37	839	24.1	378.2	3.27
115	121	841	24.7	24.0	21.8	24.8	26.6	3.20	6.3	14.8	0.30	8.42	40.2	90	3.45	0.139	0.130	8.1	0.54	3857	2496	207	71	D	G	0.4892	411.4	3.41	839	24.0	402.7	3.34	819	24.3	393.0	3.26	798	24.6	382.4	3.17
120	126	797	25.3	24.6	22.2	25.2	26.9	3.27	6.4	15.0	0.30	8.79	40.1	89	3.54	0.141	0.132	8.0	0.54	3837	2496	203	70	D	G	0.5193	413.9	3.29	796	24.6	405.3	3.23	779	24.9	395.9	3.15	762	25.2	386.2	3.07
125	131	758	25.9	25.2	22.5	25.5	27.2	3.34	6.5	15.1	0.30	9.15	40.0	88	3.63	0.143	0.134	7.9	0.54	3818	2496	199	69	C	G	0.5489	416.1	3.19	757	25.2	407.7	3.12	743	25.5	398.5	3.05	729	25.7	389.5	2.98
130	136	723	26.5	25.8	22.8	25.7	27.4	3.41	6.6	15.3	0.30	9.50	39.9	87	3.72	0.145	0.136	7.7	0.55	3800	2496	196	69	C	G	0.5780	417.9	3.08	722	25.8	409.6	3.02	711	26.0	400.6	2.95	699	26.3	392.3	2.89
135	141	691	27.1	26.3	23.1	26.0	27.7	3.47	6.7	15.4	0.30	9.85	39.7	86	3.80	0.146	0.137	7.6	0.55	3784	2496	193	68	C	G	0.6064	419.0	2.98	690	26.3	410.9	2.92	681	26.6	402.1	2.86	671	26.8	394.3	2.80
140	146	662	27.6	26.9	23.3	26.2	27.9	3.53	6.8	15.5	0.30	10.18	39.6	85	3.89	0.148	0.139	7.5	0.55	3770	2496	190	67	C	G	0.6341	419.8	2.88	662	26.9	411.8	2.83	653	27.1	403.1	2.77	645	27.3	395.9	2.72
145	151	636	28.1	27.4	23.6	26.5	28.2	3.59	6.9	15.6	0.30	10.51	39.5	84	3.97	0.150	0.141	7.4	0.55	3757	2496	187	67	C	G	0.6613	420.6	2.79	636	27.4	412.7	2.74	629	27.6	404.1	2.68	621	27.7	397.2	2.64
150	156	612	28.6	27.9	23.8	26.7	28.4	3.64	7.0	15.7	0.31	10.84	39.4	84	4.04	0.151	0.143	7.4	0.55	3746	2496	184	66	C	G	0.6877	420.9	2.70	612	27.9	413.1	2.65	606	28.0	404.6	2.60	599	28.2	398.1	2.56
155	161	590	29.1	28.3	24.1	26.9	28.6	3.70	7.1	15.7	0.31	11.16	39.2	83	4.12	0.153	0.144	7.3	0.55	3737	2496	182	66	C	G	0.7134	420.9	2.62	590	28.3	413.2	2.57	585	28.5	404.8	2.52	579	28.7	398.7	2.48
160	166	570	29.6	28.8	24.3	27.1	28.7	3.75	7.2	15.8	0.31	11.46	39.1	82	4.19	0.155	0.146	7.2	0.55	3729	2496	180	65	C	G	0.7382	420.8	2.54	570	28.8	413.2	2.49	565	29.0	404.9	2.44	560	29.1	399.1	2.41
165	171	552	30.0	29.3	24.5	27.3	28.9	3.80	7.2	15.8	0.31	11.77	39.1	81	4.26	0.156	0.147	7.1	0.55	3722	2496	178	65	C	G	0.7625	420.9	2.47	552	29.3	413.3	2.42	548	29.4	405.1	2.37	544	29.5	399.6	2.34
170	176	536	30.5	29.7	24.7	27.4	29.1	3.85	7.3	15.9	0.31	12.06	39.0	80	4.32	0.157	0.148	7.1	0.55	3716	2496	176	65	C	G	0.7860	421.3	2.40	536	29.7	413.8	2.36	533	29.8	405.7	2.31	529	29.9	400.4	2.28
175	181	520	30.9	30.1	24.9	27.6	29.2	3.89	7.4	15.9	0.31	12.35	38.9	79	4.39	0.159	0.150	7.0	0.55	3712	2496	174	64	C	G	0.8088	420.6	2.33	520	30.1	413.1	2.29	517	30.2	405.0	2.24	514	30.3	400.0	2.21
180	186	506	31.3	30.5	25.1	27.8	29.4	3.94	7.4	15.9	0.32	12.64	38.9	79	4.45	0.160	0.151	7.0	0.56	3709	2496	172	64	C	G	0.8308	420.4	2.26	506	30.5	413.0	2.22	503	30.6	404.9	2.18	500	30.7	400.1	2.16
		SI = 19 m Initial Density = 7500 stems/ha																																						
5	11	7306	1.7	1.6	2.4	3.2	3.4	0.72	1.6	0.6	0.71	0.40	1.6	167	1.17	0.362	0.342	1.3	0.02	1079	2607	67	29	A	G	0.0003	2.0	0.19	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	6872	3.4	3.1	4.0	5.4	5.8	0.85	2.2	1.6	0.57	0.57	6.1	133	1.21	0.225	0.209	3.3	0.07	1591	2607	128	39	B	G	0.0019	12.8	0.82	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	6281	4.9	4.6	5.6	7.4	8.0	0.99	2.6	2.7	0.47	0.79	11.7	125	1.26	0.170	0.157	5.3	0.14	2128	2607	181	50	B	G	0.0055	34.6	1.68	268	8.2	3.6	0.17	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	5623	6.3	5.9	7.1	9.3	10.2	1.13	2.8	3.9	0.41	1.05	17.5	121	1.33	0.143	0.131	7.0	0.21	2620	2607	223	59	C	G	0.0116	65.3	2.55	1417	8.6	26.4	1.03	9	12.7	0.5	0.02	0	0.0	0.0	0.00
25	31	4968	7.6	7.2	8.5	11.1	12.1	1.28	3.1	5.0	0.37	1.34	22.7	118	1.42	0.128	0.117	8.2	0.28	3036	2607	252	67	C	G	0.0204	101.2	3.30	2431	9.3	64.5	2.11	124	13.0	7.8	0.25	16	14.6	1.1	0.04
30	36	4360	8.9	8.5	9.9	12.6	13.8	1.42	3.3	6.0	0.35	1.66	27.2	115	1.51	0.120	0.110	9.1	0.33	3365	2607	271	72	D	G	0.0319	138.9	3.90	2897	10.0	107.2	3.01	446	13.4	33.0	0.93	114	14.9	9.5	0.27
35	41	3819	10.1	9.7	11.1	14.0	15.3	1.56	3.5	7.0	0.33	2.00	30.9	113	1.62	0.115	0.106	9.7	0.38	3615	2607	282	77	D	G	0.0460	175.7	4.32	2975	10.8	148.9	3.66	862	13.8	74.4	1.83	341	15.2	32.6	0.80
40	46	3349	11.3	10.8	12.2	15.3	16.7	1.69	3.7	7.9	0.32	2.37	33.8	111	1.73	0.113	0.104	10.0	0.42	3798	2607	286	79	D	G	0.0628	210.2	4.61	2854	11.7	187.3	4.10	1218	14.3	122.1	2.68	633	15.6	69.3	1.52
45	51	2948	12.5	11.9	13.3	16.4	17.9	1.82	3.9	8.7	0.31	2.74	36.0	109	1.84	0.112	0.103	10.2	0.45	3925	2607	286	81	D	G	0.0820	241.6	4.77	2651	12.6	221.8	4.38	1450	14.9	168.2	3.32	902	16.1	112.7	2.23
50	56	2607	13.6	13.0	14.2	17.4	19.0	1.95	4.1	9.4	0.30	3.13	37.7	107	1.96	0.112	0.103	10.2	0.48	4011	2607	284	82	D	G	0.1034	269.6	4.85	2424	13.6	251.9	4.53	1564	15.5	209.1	3.76	1099	16.6	156.2	2.81
55	61	2319	14.6	14.0	15.1	18.4	20.0	2.07	4.3	10.1	0.30	3.53	38.9	106	2.08	0.113	0.104	10.2	0.49	4063	2607	279	82	D	G	0.1268	294.1	4.85	2203	14.5	278.2	4.59	1592	16.2	243.9	4.02	1218	17.2	196.2	3.24
60	66	2075	15.6	15.0	15.9	19.2	20.8	2.18	4.5	10.7	0.29	3.93	39.8	104	2.20	0.114	0.105	10.1	0.51	4091	2607	274	82	D	G	0.1520	315.4	4.81	2000	15.4	300.9	4.58	1565	16.9	273.1	4.16	1272	17.8	231.1	3.52
65	71	1868	16.6	16.0	16.6	19.9	21.6	2.29	4.7	11.3	0.29	4.34	40.5	103	2.31	0.116	0.107	9.9	0.52	4101	2607	267	81	D	G	0.1786	333.7	4.72	1818	16.3	320.3	4.53	1506	17.5	297.2	4.21	1280	18.4	260.8	3.69
70	76	1691	17.5	16.9	17.3	20.6	22.4	2.40	4.9	11.8	0.29	4.75	40.9	101	2.43	0.118	0.109	9.8	0.53	4098	2607	261	80	D	G	0.2066	349.3	4.62	1657	17.1	336.7	4.45	1431	18.2	317.2	4.19	1258	19.0	285.7	3.78
75	81	1540	18.4	17.8	18.0	21.3	23.0	2.50	5.0	12.3	0.29	5.15	41.1	100	2.55	0.120	0.111	9.6	0.53	4087	2607	254	79	D	G	0.2355	362.6	4.50	1517	18.0	350.7	4.35	1350	18.9	333.7	4.14	1217	19.6	306.4	3.80
80	86	1410	19.3	18.6	18.6	21.8	23.6	2.60	5.2	12.7	0.29	5.56	41.3	99	2.66	0.122	0.113	9.4	0.54	4068	2607	248	78	D	G	0.2651	373.8	4.37	1393	18.8	362.5	4.23	1270	19.6	347.4	4.06	1167	20.2	323.7	3.78
85	91	1298	20.1	19.5	19.1	22.4	24.1	2.69	5.4	13.1	0.29	5.97	41.3	97	2.78	0.124	0.115	9.2	0.54	4046	2607	242	77	D	G	0.2953	383.3	4.23	1286	19.6	372.5	4.11	1193	20.3	358.9	3.96	1112	20.9	338.0	3.73
90	96	1200	20.9	20.3	19.6	22.9	24.6	2.78	5.5	13.4	0.29	6.37	41.3	96	2.89	0.126	0.117	9.0	0.54	4021	2607	235	76	D	G	0.3258	391.0	4.09	1191	20.4	380.7	3.98	1120	21.0	368.1	3.85	1057	21.5	349.7	3.66
95	101	1115	21.7	21.0	20.1	23.3	25.1	2.87	5.7	13.8	0.29	6.76	41.2	95	2.99	0.129	0.119	8.8	0.54	3995	2607	230	75	D	G	0.3567	397.7	3.95	1109	21.1	387.7	3.85	1053	21.7	375.9	3.74	1003	22.1	359.5	3.57
100	106	1040	22.4	21.7	20.5	23.7	25.5	2.95	5.8	14.0	0.29	7.15	41.1	94	3.10	0.131	0.122	8.7	0.54	3969	2607	224	74	D	G	0.3874	402.9	3.81	1035	21.8	393.3	3.72	992	22.3	382.2	3.62	952	22.7	367.5	3.48
105	111	975	23.1	22.4	20.9	24.1	25.9	3.03	6.0	14.3	0.29	7.54	41.0	93	3.20	0.133	0.124	8.5	0.55	3943	2607	219	73	D	G	0.4182	407.7	3.69	971	22.5	398.3	3.60	937	22.9	387.7	3.50	905	23.3	374.5	3.39
110	116	917	23.8	23.1	21.3	24.5	26.2	3.11	6.1	14.5	0.29	7.92	40.8	92	3.30	0.135	0.126	8.4	0.55	3918	2607	215	73	D	G	0.4486	411.4	3.56	914	23.2	402.3	3.48	887	23.5	392.1	3.39	860	23.9	380.0	3.29
115	121	865	24.5	23.7	21.7	24.8	26.6	3.18	6.2	14.7	0.29	8.29	40.6	91	3.40	0.137	0.128	8.2	0.55	3894	2607	210	72	D	G	0.4788	414.2	3.43	863	23.8	405.2	3.36	841	24.1	395.4	3.28	819	24.4	384.5	3.19
120	126	819	25.1	24.4	22.0	25.1	26.9	3.25	6.3	14.9	0.30	8.65	40.5	90	3.49	0.139	0.130	8.1	0.55	3871	2607	206	71	D	G	0.5085	416.5	3.32	817	24.4	407.8	3.25	799	24.7	398.2	3.17	781	25.0	388.2	3.09
125	131	778	25.7	25.0	22.4	25.4	27.2	3.32	6.5	15.1	0.30	9.01	40.3	89	3.59	0.141	0.132	8.0	0.55	3850	2607	202	70	D	G	0.5378	418.4	3.20	777	25.0	409.9	3.14	762	25.3	400.6	3.07	747	25.5	391.3	3.00
130	136	741	26.3	25.5	22.7	25.7	27.4	3.38	6.6	15.2	0.30	9.36	40.2	88	3.67	0.143	0.134	7.8	0.55	3831	2607	199	69	C	G	0.5667	419.9	3.10	740	25.6	411.5	3.03	727	25.8	402.3	2.97	715	26.0	393.7	2.90
135	141	708	26.8	26.1	22.9	25.9	27.7	3.44	6.7	15.3	0.30	9.70	40.0	87	3.76	0.145	0.136	7.7	0.55	3813	2607	195	69	C	G	0.5948	421.1	2.99	707	26.1	412.9	2.94	697	26.3	403.9	2.87	686	26.6	395.9	2.82
140	146	678	27.4	26.6	23.2	26.2	27.9	3.50	6.8	15.4	0.30	10.04	39.9	86	3.84	0.147	0.137	7.6	0.55	3797	2607	192	68	C	G	0.6223	421.9	2.90	678	26.6	413.8	2.84	669	26.8	405.1	2.78	659	27.1	397.5	2.73
145	151	650	27.9	27.1	23.5	26.4	28.2	3.56	6.9	15.5	0.30	10.37	39.7	85	3.92	0.148	0.139	7.5	0.55	3783	2607	189	67	C	G	0.6492	422.0	2.80	650	27.1	414.0	2.75	642	27.4	405.3	2.69	634	27.5	398.3	2.64
150	156	626	28.4	27.6	23.7	26.6	28.4	3.62	7.0	15.6	0.31	10.69	39.6	84	4.00	0.150	0.141	7.4	0.55	3770	2607	187	67	C	G	0.6754	422.8	2.72	626	27.6	414.9	2.67	619	27.8	406.4	2.61	612	28.0	399.7	2.57
155	161	603	28.9	28.1	23.9	26.8	28.6	3.67	7.0	15.7	0.31	11.01	39.5	83	4.07	0.152	0.143	7.3	0.55	3758	2607	184	66	C	G	0.7010	422.7	2.63	603	28.1	414.9	2.58	597	28.3	406.4	2.53	591	28.5	400.1	2.49
160	166	583	29.3	28.6	24.2	27.0	28.7	3.72	7.1	15.7	0.31	11.32	39.4	82	4.14	0.153	0.144	7.3	0.55	3749	2607	182	66	C	G	0.7257	423.1	2.55	583	28.6	415.4	2.51	578	28.7	407.0	2.46	573	28.9	401.1	2.42
165	171	564	29.8	29.0	24.4	27.2	28.9	3.77	7.2	15.8	0.31	11.62	39.3	81	4.21	0.155	0.146	7.2	0.55	3741	2607	180	66	C	G	0.7500	423.0	2.48	564	29.0	415.3	2.43	560	29.2	407.0	2.39	555	29.3	401.3	2.35
170	176	546	30.2	29.5	24.6	27.4	29.1	3.82	7.3	15.8	0.31	11.91	39.2	81	4.28	0.156	0.147	7.1	0.55	3734	2607	177	65	C	G	0.7733	422.2	2.40	546	29.5	414.6	2.36	542	29.6	406.4	2.31	538	29.7	401.0	2.28
175	181	530	30.7	29.9	24.8	27.6	29.2	3.87	7.3	15.8	0.31	12.20	39.1	80	4.34	0.158	0.149	7.1	0.55	3728	2607	176	65	C	G	0.7960	421.9	2.34	530	29.9	414.3	2.29	527	30.0	406.2	2.25	523	30.1	401.0	2.22
180	186	516	31.1	30.3	24.9	27.7	29.4	3.91	7.4	15.9	0.32	12.48	39.1	79	4.40	0.159	0.150	7.0	0.56	3724	2607	174	64	C	G	0.8180	422.1	2.27	516	30.3	414.6	2.23	513	30.4	406.5	2.19	510	30.5	401.6	2.16

Table A105. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
		SI = 19 m Initial Density = 8000 stems/ha																																						
5	11	7786	1.7	1.5	2.4	3.2	3.4	0.71	1.6	0.6	0.70	0.40	1.7	170	1.13	0.351	0.331	1.3	0.02	1141	2717	70	31	B	G	0.0003	2.0	0.19	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	7311	3.3	3.1	4.0	5.4	5.8	0.84	2.1	1.6	0.56	0.56	6.3	134	1.17	0.218	0.203	3.5	0.07	1667	2717	133	41	B	G	0.0018	13.0	0.83	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	6665	4.8	4.5	5.6	7.4	8.0	0.98	2.5	2.7	0.47	0.78	12.1	126	1.22	0.165	0.152	5.5	0.14	2216	2717	188	52	C	G	0.0053	35.2	1.71	243	8.2	3.2	0.16	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	5949	6.2	5.8	7.1	9.3	10.2	1.12	2.8	3.9	0.41	1.03	17.9	121	1.30	0.139	0.128	7.2	0.22	2715	2717	231	61	C	G	0.0112	66.4	2.59	1399	8.6	25.5	0.99	7	12.6	0.4	0.02	0	0.0	0.0	0.00
25	31	5240	7.5	7.1	8.5	11.1	12.1	1.27	3.0	5.0	0.37	1.32	23.3	118	1.38	0.125	0.114	8.5	0.28	3133	2717	261	69	C	G	0.0196	102.8	3.36	2474	9.2	64.0	2.09	110	12.9	6.9	0.23	13	14.5	0.9	0.03
30	36	4585	8.8	8.3	9.8	12.6	13.8	1.41	3.2	6.0	0.35	1.63	27.8	116	1.48	0.117	0.107	9.4	0.34	3462	2717	280	75	D	G	0.0307	140.8	3.95	2983	9.9	107.3	3.01	420	13.3	30.8	0.86	101	14.8	8.3	0.23
35	41	4005	10.0	9.5	11.0	14.0	15.3	1.54	3.5	6.9	0.33	1.96	31.5	113	1.58	0.113	0.103	10.0	0.39	3709	2717	290	79	D	G	0.0444	178.0	4.38	3080	10.7	149.7	3.68	841	13.7	71.7	1.76	319	15.2	30.1	0.74
40	46	3504	11.2	10.7	12.1	15.3	16.7	1.67	3.7	7.8	0.31	2.32	34.4	111	1.69	0.111	0.101	10.3	0.43	3888	2717	294	81	D	G	0.0607	212.7	4.66	2961	11.6	188.7	4.14	1213	14.3	119.8	2.63	612	15.6	66.1	1.45
45	51	3078	12.3	11.8	13.2	16.4	17.9	1.80	3.9	8.6	0.31	2.69	36.6	110	1.80	0.110	0.101	10.4	0.46	4011	2717	294	83	D	G	0.0794	244.3	4.82	2752	12.5	223.5	4.41	1462	14.8	166.8	3.29	890	16.0	109.5	2.16
50	56	2717	13.4	12.8	14.1	17.4	19.0	1.93	4.1	9.4	0.30	3.07	38.3	108	1.92	0.110	0.101	10.5	0.48	4091	2717	291	83	D	G	0.1003	272.4	4.90	2516	13.4	254.0	4.57	1590	15.4	208.6	3.75	1099	16.5	153.6	2.76
55	61	2412	14.4	13.9	15.0	18.3	20.0	2.05	4.3	10.0	0.29	3.46	39.5	106	2.04	0.111	0.102	10.4	0.50	4139	2717	286	83	D	G	0.1231	296.9	4.90	2285	14.3	280.4	4.62	1626	16.1	244.1	4.03	1228	17.1	194.3	3.20
60	66	2155	15.5	14.9	15.8	19.2	20.8	2.16	4.4	10.7	0.29	3.86	40.4	105	2.15	0.112	0.103	10.3	0.51	4162	2717	280	83	D	G	0.1477	318.2	4.85	2073	15.2	303.3	4.62	1602	16.7	273.8	4.17	1290	17.6	229.9	3.50
65	71	1937	16.4	15.8	16.5	19.9	21.6	2.27	4.6	11.2	0.29	4.26	41.0	103	2.27	0.114	0.105	10.1	0.53	4168	2717	273	82	D	G	0.1738	336.6	4.77	1882	16.1	322.7	4.57	1544	17.4	298.4	4.22	1303	18.2	260.3	3.69
70	76	1751	17.3	16.7	17.2	20.6	22.4	2.38	4.8	11.7	0.29	4.66	41.4	102	2.39	0.116	0.107	9.9	0.53	4161	2717	266	82	D	G	0.2011	352.1	4.66	1714	17.0	339.1	4.48	1469	18.1	318.7	4.21	1283	18.8	285.7	3.78
75	81	1593	18.2	17.6	17.9	21.2	23.0	2.48	5.0	12.2	0.29	5.06	41.6	100	2.51	0.118	0.109	9.7	0.54	4145	2717	259	81	D	G	0.2294	365.4	4.53	1567	17.8	353.2	4.38	1387	18.8	335.5	4.16	1244	19.5	306.9	3.81
80	86	1457	19.1	18.5	18.4	21.8	23.6	2.58	5.2	12.6	0.29	5.47	41.8	99	2.62	0.120	0.111	9.6	0.54	4124	2717	252	80	D	G	0.2585	376.6	4.40	1439	18.6	365.1	4.26	1305	19.5	349.4	4.08	1194	20.1	324.5	3.79
85	91	1339	19.9	19.3	19.0	22.3	24.1	2.67	5.3	13.0	0.29	5.87	41.8	98	2.73	0.122	0.113	9.4	0.54	4098	2717	246	79	D	G	0.2881	385.8	4.26	1326	19.4	374.8	4.14	1225	20.2	360.7	3.98	1139	20.7	338.9	3.74
90	96	1237	20.7	20.0	19.5	22.8	24.6	2.76	5.5	13.4	0.29	6.26	41.7	97	2.84	0.125	0.115	9.2	0.55	4070	2717	239	77	D	G	0.3182	393.6	4.12	1228	20.2	383.1	4.01	1150	20.8	370.1	3.87	1082	21.3	350.9	3.67
95	101	1149	21.5	20.8	20.0	23.3	25.1	2.84	5.6	13.7	0.29	6.65	41.6	95	2.95	0.127	0.118	9.0	0.55	4041	2717	234	76	D	G	0.3485	400.4	3.98	1142	20.9	390.3	3.88	1082	21.5	378.2	3.76	1028	21.9	361.1	3.59
100	106	1071	22.2	21.5	20.4	23.7	25.5	2.93	5.8	14.0	0.29	7.04	41.5	94	3.06	0.129	0.120	8.8	0.55	4012	2717	228	75	D	G	0.3788	405.7	3.84	1066	21.6	395.9	3.75	1019	22.1	384.5	3.64	976	22.5	369.3	3.50
105	111	1002	22.9	22.2	20.8	24.1	25.9	3.01	5.9	14.2	0.29	7.42	41.3	93	3.16	0.131	0.122	8.6	0.55	3983	2717	223	74	D	G	0.4091	409.9	3.70	998	22.3	400.4	3.62	961	22.7	389.6	3.52	926	23.1	375.8	3.40
110	116	942	23.6	22.9	21.2	24.4	26.2	3.08	6.0	14.5	0.29	7.80	41.2	92	3.26	0.133	0.124	8.5	0.55	3956	2717	218	73	D	G	0.4392	413.7	3.58	939	22.9	404.5	3.50	909	23.4	394.1	3.41	881	23.7	381.6	3.30
115	121	888	24.2	23.5	21.6	24.8	26.6	3.16	6.2	14.7	0.29	8.16	41.0	91	3.36	0.135	0.126	8.3	0.55	3929	2717	213	72	D	G	0.4690	416.5	3.45	886	23.6	407.4	3.38	862	23.9	397.4	3.29	838	24.3	386.0	3.20
120	126	840	24.9	24.2	21.9	25.1	26.9	3.23	6.3	14.9	0.29	8.53	40.8	90	3.45	0.138	0.128	8.2	0.55	3905	2717	209	72	D	G	0.4985	418.7	3.33	838	24.2	409.8	3.26	818	24.5	400.1	3.18	799	24.8	389.7	3.10
125	131	797	25.5	24.7	22.2	25.4	27.2	3.29	6.4	15.0	0.30	8.88	40.6	89	3.54	0.140	0.130	8.0	0.55	3881	2717	205	71	D	G	0.5274	420.3	3.22	796	24.8	411.7	3.15	779	25.1	402.2	3.08	763	25.3	392.6	3.01
130	136	759	26.1	25.3	22.5	25.6	27.4	3.36	6.5	15.2	0.30	9.23	40.5	88	3.63	0.142	0.132	7.9	0.55	3860	2717	201	70	D	G	0.5559	421.9	3.11	758	25.3	413.4	3.05	744	25.6	404.2	2.98	731	25.9	395.3	2.91
135	141	724	26.6	25.9	22.8	25.9	27.7	3.42	6.6	15.3	0.30	9.57	40.3	87	3.72	0.143	0.134	7.8	0.55	3840	2717	197	69	C	G	0.5838	422.7	3.01	723	25.9	414.3	2.95	712	26.1	405.3	2.88	700	26.4	397.0	2.82
140	146	693	27.2	26.4	23.1	26.2	27.9	3.48	6.7	15.4	0.30	9.90	40.1	86	3.80	0.145	0.136	7.7	0.55	3823	2717	194	69	C	G	0.6111	423.5	2.91	692	26.4	415.3	2.85	683	26.6	406.4	2.79	673	26.9	398.7	2.74
145	151	665	27.7	26.9	23.4	26.4	28.2	3.54	6.8	15.5	0.30	10.23	40.0	85	3.88	0.147	0.138	7.6	0.55	3806	2717	191	68	C	G	0.6379	424.2	2.82	665	26.9	416.1	2.76	656	27.2	407.3	2.70	648	27.3	400.0	2.66
150	156	639	28.2	27.4	23.6	26.6	28.4	3.59	6.9	15.6	0.30	10.55	39.8	84	3.96	0.149	0.139	7.5	0.55	3792	2717	188	67	C	G	0.6638	424.2	2.73	639	27.4	416.2	2.67	632	27.6	407.6	2.62	624	27.8	400.7	2.57
155	161	616	28.7	27.9	23.8	26.8	28.6	3.65	7.0	15.7	0.31	10.87	39.7	83	4.03	0.150	0.141	7.4	0.55	3779	2717	186	67	C	G	0.6893	424.6	2.64	616	27.9	416.7	2.59	610	28.1	408.2	2.54	603	28.3	401.7	2.50
160	166	594	29.1	28.4	24.0	27.0	28.7	3.70	7.1	15.7	0.31	11.17	39.6	82	4.10	0.152	0.143	7.3	0.55	3768	2717	183	66	C	G	0.7140	424.1	2.56	594	28.4	416.3	2.51	589	28.5	407.9	2.46	583	28.7	401.7	2.43
165	171	575	29.6	28.8	24.2	27.2	28.9	3.75	7.1	15.8	0.31	11.47	39.5	82	4.17	0.153	0.144	7.2	0.55	3758	2717	181	66	C	G	0.7379	424.3	2.49	575	28.8	416.6	2.44	570	29.0	408.2	2.39	565	29.1	402.4	2.36
170	176	557	30.0	29.3	24.4	27.4	29.1	3.80	7.2	15.8	0.31	11.77	39.4	81	4.24	0.155	0.146	7.2	0.56	3750	2717	179	66	C	G	0.7612	424.0	2.41	557	29.3	416.4	2.37	553	29.4	408.1	2.32	548	29.5	402.5	2.29
175	181	540	30.4	29.7	24.6	27.5	29.2	3.84	7.3	15.8	0.31	12.06	39.3	80	4.30	0.156	0.147	7.1	0.56	3744	2717	177	65	C	G	0.7837	423.2	2.34	540	29.7	415.7	2.30	536	29.8	407.4	2.26	532	29.9	402.1	2.23
180	186	525	30.9	30.1	24.8	27.7	29.4	3.89	7.4	15.8	0.31	12.34	39.3	79	4.36	0.158	0.148	7.1	0.56	3738	2717	175	65	C	G	0.8057	423.0	2.28	525	30.1	415.5	2.24	522	30.2	407.3	2.19	518	30.3	402.2	2.17
		SI = 19 m Initial Density = 9000 stems/ha																																						
5	11	8747	1.6	1.5	2.4	3.2	3.4	0.71	1.6	0.7	0.70	0.40	1.7	174	1.07	0.332	0.312	1.4	0.02	1263	2930	77	35	B	G	0.0002	2.1	0.20	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	8184	3.2	3.0	4.0	5.4	5.8	0.83	2.1	1.6	0.55	0.55	6.6	136	1.11	0.207	0.192	3.7	0.08	1817	2930	144	45	B	G	0.0016	13.5	0.86	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	7426	4.7	4.4	5.5	7.4	8.0	0.97	2.4	2.7	0.46	0.75	12.6	127	1.16	0.157	0.144	5.9	0.15	2386	2930	202	56	C	G	0.0049	36.4	1.76	199	8.2	2.5	0.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	6592	6.0	5.7	7.0	9.3	10.2	1.10	2.7	3.8	0.40	1.00	18.7	123	1.23	0.132	0.121	7.6	0.23	2897	2930	246	66	C	G	0.0104	68.5	2.67	1355	8.5	23.8	0.93	5	12.5	0.3	0.01	0	0.0	0.0	0.00
25	31	5775	7.3	6.9	8.4	11.0	12.1	1.24	2.9	4.9	0.37	1.27	24.2	120	1.32	0.119	0.109	9.0	0.30	3318	2930	277	73	D	G	0.0183	105.7	3.45	2540	9.1	62.7	2.05	86	12.9	5.3	0.17	8	14.5	0.6	0.02
30	36	5027	8.6	8.1	9.7	12.6	13.8	1.38	3.1	5.9	0.34	1.57	28.9	117	1.41	0.112	0.102	9.9	0.36	3645	2930	296	79	D	G	0.0287	144.4	4.05	3139	9.8	107.3	3.01	371	13.2	26.8	0.75	79	14.8	6.4	0.18
35	41	4370	9.8	9.3	10.9	14.0	15.3	1.51	3.4	6.9	0.32	1.89	32.6	115	1.51	0.108	0.099	10.5	0.41	3886	2930	306	83	D	G	0.0417	182.1	4.48	3276	10.6	150.9	3.71	797	13.6	66.5	1.64	278	15.1	25.8	0.63
40	46	3807	10.9	10.4	12.0	15.2	16.7	1.64	3.6	7.7	0.31	2.23	35.6	112	1.62	0.106	0.097	10.8	0.45	4056	2930	309	85	D	G	0.0571	217.3	4.76	3164	11.4	190.9	4.18	1196	14.1	115.0	2.52	569	15.5	60.1	1.32
45	51	3330	12.0	11.5	13.0	16.4	17.9	1.77	3.8	8.5	0.30	2.59	37.8	110	1.73	0.106	0.097	10.9	0.48	4171	2930	308	86	D	G	0.0748	249.0	4.92	2944	12.3	226.4	4.47	1478	14.7	163.5	3.23	861	15.9	103.2	2.04
50	56	2930	13.1	12.5	14.0	17.4	19.0	1.89	4.0	9.3	0.30	2.96	39.4	109	1.85	0.106	0.097	10.9	0.50	4242	2930	304	87	D	G	0.0946	277.3	4.98	2692	13.2	257.5	4.63	1631	15.2	206.9	3.72	1092	16.4	148.2	2.66
55	61	2593	14.1	13.6	14.8	18.3	20.0	2.01	4.2	9.9	0.29	3.34	40.6	107	1.96	0.107	0.098	10.8	0.52	4280	2930	298	87	D	G	0.1165	302.0	4.98	2443	14.0	284.3	4.69	1684	15.9	243.9	4.02	1241	16.9	190.1	3.14
60	66	2310	15.1	14.5	15.6	19.1	20.8	2.12	4.3	10.6	0.29	3.72	41.5	105	2.08	0.109	0.100	10.7	0.53	4295	2930	291	86	D	G	0.1400	323.3	4.93	2212	14.9	307.3	4.68	1670	16.5	274.8	4.19	1320	17.4	227.2	3.46
65	71	2071	16.1	15.5	16.4	19.9	21.6	2.23	4.5	11.1	0.29	4.11	42.0	104	2.20	0.111	0.102	10.5	0.54	4293	2930	284	85	D	G	0.1649	341.6	4.84	2006	15.8	327.0	4.63	1616	17.2	300.3	4.25	1343	18.0	258.8	3.66
70	76	1868	17.0	16.4	17.0	20.5	22.4	2.34	4.7	11.6	0.28	4.51	42.4	102	2.31	0.113	0.104	10.3	0.55	4278	2930	276	84	D	G	0.1912	357.2	4.72	1824	16.6	343.5	4.54	1540	17.8	321.1	4.25	1330	18.6	285.3	3.77
75	81	1696	17.9	17.3	17.7	21.2	23.0	2.44	4.9	12.1	0.28	4.90	42.6	101	2.43	0.115	0.106	10.1	0.55	4255	2930	269	83	D	G	0.2185	370.5	4.59	1666	17.5	357.7	4.44	1457	18.5	338.5	4.20	1294	19.2	307.4	3.81
80	86	1548	18.7	18.1	18.2	21.7	23.6	2.53	5.0	12.5	0.28	5.29	42.7	100	2.54	0.117	0.108	9.9	0.55	4226	2930	261	82	D	G	0.2465	381.6	4.46	1526	18.3	369.6	4.32	1371	19.2	352.7	4.12	1245	19.8	325.7	3.80
85	91	1420	19.6	18.9	18.8	22.3	24.1	2.63	5.2	12.9	0.28	5.68	42.6	98	2.65	0.119	0.110	9.6	0.56	4195	2930	254	81	D	G	0.2752	390.8	4.31	1405	19.0	379.3	4.18	1287	19.8	364.2	4.02	1189	20.4	340.6	3.76
90	96	1310	20.3	19.7	19.3	22.7	24.6	2.72	5.4	13.3	0.28	6.07	42.6	97	2.76	0.121	0.112	9.4	0.56	4161	2930	247	80	D	G	0.3044	398.7	4.17	1299	19.8	387.7	4.05	1209	20.5	373.9	3.91	1132	21.0	353.1	3.69
95	101	1213	21.1	20.4	19.8	23.2	25.1	2.80	5.5	13.6	0.29	6.45	42.4	96	2.87	0.124	0.114	9.2	0.56	4126	2930	241	78	D	G	0.3337	404.8	4.02	1205	20.5	394.2	3.92	1135	21.1	381.5	3.79	1074	21.6	363.1	3.61
100	106	1129	21.8	21.1	20.2	23.6	25.5	2.88	5.7	13.9	0.29	6.83	42.2	95	2.98	0.126	0.117	9.0	0.56	4092	2930	235	77	D	G	0.3632	410.0	3.88	1123	21.2	399.9	3.79	1069	21.8	388.0	3.67	1019	22.2	371.4	3.52
105	111	1055	22.5	21.8	20.6	24.0	25.9	2.96	5.8	14.2	0.29	7.21	42.0	94	3.08	0.128	0.119	8.9	0.56	4059	2930	229	76	D	G	0.3926	414.2	3.74	1050	21.9	404.4	3.66	1007	22.4	393.1	3.55	968	22.8	378.3	3.42
110	116	990	23.2	22.5	21.0	24.4	26.2	3.04	5.9	14.4	0.29	7.57	41.8	93	3.18	0.130	0.121	8.7	0.56	4026	2930	224	75	D	G	0.4220	417.8	3.61	986	22.6	408.2	3.53	952	23.0	397.4	3.44	920	23.3	384.1	3.32
115	121	932	23.8	23.1	21.4	24.7	26.6	3.11	6.1	14.6	0.29	7.94	41.6	92	3.28	0.133	0.123	8.5	0.56	3996	2930	219	74	D	G	0.4511	420.4	3.48	929	23.2	411.1	3.41	901	23.6	400.7	3.32	875	23.9	388.6	3.22
120	126	881	24.5	23.8	21.7	25.0	26.9	3.18	6.2	14.8	0.29	8.29	41.4	91	3.37	0.135	0.125	8.4	0.56	3967	2930	214	73	D	G	0.4799	422.8	3.37	879	23.8	413.7	3.29	856	24.2	403.7	3.21	834	24.4	392.5	3.12
125	131	835	25.1	24.3	22.0	25.3	27.2	3.25	6.3	14.9	0.29	8.64	41.2	90	3.46	0.137	0.127	8.2	0.56	3940	2930	210	72	D	G	0.5083	424.4	3.25	833	24.4	415.5	3.18	815	24.7	405.8	3.11	796	25.0	395.5	3.03
130	136	794	25.6	24.9	22.3	25.6	27.4	3.31	6.4	15.1	0.30	8.99	41.0	89	3.55	0.139	0.129	8.1	0.56	3915	2930	206	71	D	G	0.5361	425.7	3.14	793	24.9	417.0	3.07	777	25.2	407.5	3.00	762	25.5	398.1	2.94
135	141	757	26.2	25.5	22.6	25.8	27.7	3.37	6.5	15.2	0.30	9.32	40.8	88	3.63	0.141	0.131	8.0	0.56	3892	2930	202	71	D	G	0.5637	426.7	3.03	756	25.5	418.1	2.97	743	25.8	408.8	2.91	730	26.0	400.0	2.84
140	146	723	26.7	26.0	22.9	26.1	27.9	3.43	6.6	15.3	0.30	9.65	40.6	87	3.72	0.143	0.133	7.9	0.56	3870	2930	199	70	C	G	0.5905	426.9	2.93	722	26.0	418.5	2.87	711	26.3	409.4	2.81	700	26.5	401.2	2.75
145	151	693	27.3	26.5	23.1	26.3	28.2	3.49	6.7	15.4	0.30	9.98	40.5	86	3.80	0.144	0.135	7.8	0.56	3851	2930	195	69	C	G	0.6167	427.4	2.84	692	26.6	419.2	2.78	683	26.8	410.2	2.72	673	27.0	402.5	2.67
150	156	665	27.8	27.0	23.4	26.5	28.4	3.55	6.8	15.5	0.30	10.30	40.3	85	3.88	0.146	0.137	7.6	0.56	3834	2930	192	68	C	G	0.6424	427.2	2.74	665	27.0	419.1	2.69	656	27.3	410.3	2.64	648	27.4	403.0	2.59
155	161	640	28.3	27.5	23.6	26.7	28.6	3.60	6.9	15.6	0.30	10.61	40.1	84	3.95	0.148	0.138	7.6	0.56	3818	2930	190	68	C	G	0.6675	427.2	2.66	640	27.5	419.2	2.61	633	27.7	410.5	2.56	625	27.9	403.6	2.51
160	166	617	28.7	28.0	23.8	26.9	28.7	3.65	7.0	15.6	0.31	10.91	40.0	83	4.03	0.150	0.140	7.5	0.56	3804	2930	187	67	C	G	0.6919	426.9	2.58	617	28.0	419.0	2.53	611	28.1	410.4	2.48	604	28.3	403.9	2.44
165	171	596	29.2	28.4	24.0	27.1	28.9	3.70	7.1	15.7	0.31	11.21	39.9	82	4.10	0.151	0.142	7.4	0.56	3792	2930	184	67	C	G	0.7156	426.5	2.50	596	28.4	418.7	2.45	591	28.6	410.2	2.40	585	28.7	404.1	2.37
170	176	577	29.6	28.9	24.2	27.3	29.1	3.75	7.1	15.7	0.31	11.50	39.8	81	4.16	0.153	0.143	7.3	0.56	3781	2930	182	66	C	G	0.7386	426.2	2.43	577	28.9	418.5	2.38	572	29.0	410.1	2.33	567	29.2	404.2	2.30
175	181	559	30.0	29.3	24.4	27.4	29.2	3.80	7.2	15.8	0.31	11.79	39.6	81	4.23	0.154	0.145	7.2	0.56	3772	2930	180	66	C	G	0.7612	425.5	2.36	559	29.3	417.8	2.31	555	29.4	409.5	2.27	550	29.6	403.9	2.24
180	186	543	30.5	29.7	24.6	27.6	29.4	3.85	7.3	15.8	0.31	12.07	39.6	80	4.29	0.156	0.146	7.2	0.56	3765	2930	178	66	C	G	0.7829	425.1	2.29	543	29.7	417.5	2.25	539	29.8	409.2	2.20	535	30.0	403.9	2.18

Table A106. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 19 m Initial Density = 10000 stems/ha																																							
5	11	9706	1.5	1.4	2.4	3.2	3.4	0.71	1.5	0.7	0.69	0.39	1.8	178	1.02	0.315	0.296	1.5	0.02	1384	3135	83	38	B	G	0.0002	2.1	0.20	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	9053	3.1	2.9	3.9	5.3	5.8	0.82	2.0	1.6	0.55	0.54	6.9	139	1.05	0.197	0.182	3.9	0.08	1963	3135	154	49	B	G	0.0015	13.9	0.89	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	8179	4.5	4.3	5.5	7.4	8.0	0.95	2.4	2.7	0.46	0.73	13.2	129	1.11	0.150	0.138	6.2	0.16	2549	3135	215	60	C	G	0.0046	37.4	1.81	163	8.1	2.0	0.10	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	7225	5.9	5.5	6.9	9.3	10.2	1.09	2.6	3.8	0.40	0.97	19.5	124	1.18	0.127	0.116	8.0	0.24	3070	3135	261	70	C	G	0.0097	70.3	2.74	1302	8.4	22.1	0.86	3	12.4	0.2	0.01	0	0.0	0.0	0.00
25	31	6298	7.1	6.7	8.3	11.0	12.1	1.22	2.8	4.9	0.36	1.23	25.1	121	1.26	0.114	0.104	9.4	0.31	3493	3135	293	77	D	G	0.0172	108.2	3.53	2584	9.0	61.2	2.00	67	12.8	4.1	0.13	6	14.4	0.4	0.01
30	36	5457	8.4	7.9	9.6	12.6	13.8	1.36	3.1	5.9	0.34	1.52	29.9	118	1.35	0.108	0.098	10.3	0.37	3816	3135	311	83	D	G	0.0270	147.5	4.14	3273	9.6	106.9	3.00	327	13.2	23.2	0.65	62	14.7	5.0	0.14
35	41	4723	9.5	9.1	10.8	14.0	15.3	1.49	3.3	6.8	0.32	1.83	33.7	115	1.46	0.104	0.095	10.9	0.42	4051	3135	321	86	D	G	0.0393	185.6	4.57	3453	10.4	151.6	3.73	750	13.5	61.3	1.51	242	15.0	22.0	0.54
40	46	4099	10.7	10.2	11.9	15.2	16.7	1.62	3.5	7.7	0.31	2.16	36.6	113	1.56	0.103	0.094	11.2	0.46	4213	3135	323	89	D	G	0.0539	221.1	4.85	3352	11.2	192.5	4.22	1172	14.0	110.1	2.41	527	15.4	54.5	1.19
45	51	3574	11.8	11.2	12.9	16.3	17.9	1.74	3.7	8.4	0.30	2.51	38.8	111	1.67	0.103	0.093	11.3	0.49	4318	3135	321	90	D	G	0.0708	253.1	5.00	3125	12.1	228.7	4.52	1483	14.5	159.7	3.15	829	15.8	97.0	1.92
50	56	3135	12.8	12.3	13.8	17.3	19.0	1.86	3.9	9.2	0.29	2.86	40.5	109	1.79	0.103	0.094	11.3	0.51	4380	3135	316	90	D	G	0.0898	281.5	5.06	2858	12.9	260.3	4.68	1662	15.1	204.6	3.68	1078	16.2	142.5	2.56
55	61	2768	13.8	13.3	14.7	18.2	20.0	1.98	4.1	9.8	0.29	3.23	41.6	108	1.90	0.104	0.095	11.2	0.53	4410	3135	310	89	D	G	0.1107	306.3	5.05	2593	13.8	287.6	4.74	1733	15.7	243.1	4.01	1248	16.7	185.7	3.06
60	66	2460	14.8	14.2	15.5	19.1	20.8	2.09	4.2	10.5	0.29	3.61	42.5	106	2.02	0.106	0.097	11.0	0.54	4417	3135	302	89	D	G	0.1333	327.8	4.99	2346	14.7	310.8	4.74	1730	16.3	275.1	4.19	1342	17.3	224.0	3.41
65	71	2200	15.8	15.2	16.2	19.8	21.6	2.20	4.4	11.0	0.28	3.99	43.0	105	2.13	0.108	0.099	10.8	0.55	4407	3135	294	88	D	G	0.1573	346.0	4.90	2125	15.5	330.5	4.68	1680	16.9	301.4	4.27	1376	17.8	256.7	3.63
70	76	1981	16.7	16.1	16.9	20.5	22.4	2.30	4.6	11.5	0.28	4.37	43.3	103	2.25	0.110	0.101	10.6	0.56	4385	3135	285	87	D	G	0.1825	361.6	4.78	1930	16.3	347.3	4.59	1606	17.6	323.0	4.27	1370	18.4	284.3	3.76
75	81	1794	17.6	16.9	17.5	21.1	23.0	2.40	4.8	12.0	0.28	4.75	43.4	102	2.36	0.112	0.103	10.4	0.56	4356	3135	277	85	D	G	0.2089	374.7	4.65	1758	17.2	361.3	4.48	1521	18.3	340.6	4.22	1338	19.0	307.1	3.81
80	86	1635	18.4	17.8	18.1	21.7	23.6	2.50	5.0	12.4	0.28	5.14	43.5	100	2.47	0.114	0.105	10.1	0.57	4321	3135	269	84	D	G	0.2360	385.8	4.51	1610	17.9	373.3	4.36	1433	18.9	355.2	4.15	1290	19.6	326.0	3.81
85	91	1498	19.2	18.6	18.6	22.2	24.1	2.59	5.1	12.8	0.28	5.52	43.4	99	2.58	0.116	0.107	9.9	0.57	4283	3135	262	83	D	G	0.2638	395.1	4.36	1480	18.7	383.2	4.23	1346	19.6	367.1	4.05	1235	20.2	341.7	3.77
90	96	1379	20.0	19.3	19.1	22.7	24.6	2.68	5.3	13.2	0.28	5.90	43.3	98	2.69	0.119	0.109	9.7	0.57	4244	3135	254	81	D	G	0.2920	402.7	4.21	1366	19.5	391.3	4.09	1264	20.2	376.8	3.94	1176	20.7	354.4	3.71
95	101	1276	20.7	20.1	19.6	23.1	25.1	2.76	5.4	13.5	0.28	6.27	43.1	97	2.80	0.121	0.112	9.5	0.57	4205	3135	247	80	D	G	0.3205	409.0	4.06	1266	20.2	398.1	3.96	1187	20.8	384.7	3.82	1118	21.3	364.9	3.63
100	106	1186	21.5	20.8	20.0	23.5	25.5	2.84	5.6	13.8	0.28	6.65	42.9	95	2.90	0.123	0.114	9.3	0.57	4166	3135	241	79	D	G	0.3492	414.2	3.92	1179	20.9	403.7	3.82	1117	21.5	391.2	3.70	1061	21.9	373.5	3.54
105	111	1107	22.2	21.5	20.4	23.9	25.9	2.92	5.7	14.1	0.29	7.01	42.7	94	3.01	0.126	0.116	9.1	0.57	4128	3135	235	78	D	G	0.3780	418.4	3.78	1101	21.6	408.2	3.69	1052	22.1	396.4	3.58	1008	22.5	380.7	3.44
110	116	1037	22.8	22.1	20.8	24.3	26.2	3.00	5.8	14.3	0.29	7.38	42.5	93	3.11	0.128	0.118	8.9	0.57	4091	3135	229	76	D	G	0.4066	421.6	3.65	1033	22.2	411.8	3.56	994	22.7	400.6	3.46	957	23.0	386.3	3.34
115	121	975	23.5	22.8	21.2	24.6	26.6	3.07	6.0	14.5	0.29	7.73	42.2	92	3.20	0.130	0.121	8.7	0.57	4057	3135	224	75	D	G	0.4350	424.1	3.52	972	22.8	414.6	3.44	940	23.3	403.9	3.35	910	23.6	390.9	3.24
120	126	920	24.1	23.4	21.5	24.9	26.9	3.14	6.1	14.7	0.29	8.08	42.0	91	3.30	0.132	0.123	8.5	0.56	4024	3135	219	74	D	G	0.4632	426.1	3.39	917	23.4	416.8	3.32	892	23.8	406.5	3.24	867	24.1	394.7	3.14
125	131	871	24.7	24.0	21.8	25.2	27.2	3.21	6.2	14.9	0.29	8.43	41.7	90	3.39	0.134	0.125	8.4	0.56	3993	3135	214	73	D	G	0.4909	427.6	3.27	869	24.0	418.6	3.20	848	24.4	408.6	3.13	827	24.7	397.7	3.04
130	136	827	25.3	24.6	22.1	25.5	27.4	3.27	6.3	15.0	0.29	8.77	41.5	89	3.48	0.136	0.127	8.3	0.56	3965	3135	210	73	D	G	0.5184	428.7	3.16	826	24.6	419.8	3.10	808	24.9	410.1	3.02	790	25.2	400.0	2.95
135	141	788	25.8	25.1	22.4	25.8	27.7	3.33	6.4	15.1	0.30	9.10	41.3	88	3.56	0.138	0.129	8.1	0.56	3939	3135	206	72	D	G	0.5453	429.7	3.06	787	25.1	421.0	2.99	772	25.4	411.5	2.93	757	25.7	402.2	2.86
140	146	752	26.4	25.6	22.7	26.0	27.9	3.39	6.5	15.3	0.30	9.43	41.1	87	3.65	0.140	0.131	8.0	0.56	3914	3135	203	71	D	G	0.5718	430.0	2.95	751	25.7	421.4	2.89	738	25.9	412.1	2.83	726	26.1	403.4	2.77
145	151	719	26.9	26.2	22.9	26.2	28.2	3.45	6.6	15.4	0.30	9.75	40.9	86	3.73	0.142	0.132	7.9	0.56	3892	3135	199	70	D	G	0.5976	429.7	2.85	718	26.2	421.3	2.80	708	26.4	412.2	2.74	697	26.6	404.1	2.68
150	156	690	27.4	26.7	23.2	26.4	28.4	3.51	6.7	15.4	0.30	10.06	40.7	85	3.81	0.144	0.134	7.8	0.56	3872	3135	196	69	C	G	0.6229	429.8	2.76	690	26.7	421.6	2.71	680	26.9	412.6	2.65	671	27.1	405.0	2.60
155	161	663	27.9	27.1	23.4	26.6	28.6	3.56	6.8	15.5	0.30	10.37	40.5	84	3.88	0.146	0.136	7.7	0.56	3854	3135	193	69	C	G	0.6477	429.4	2.67	663	27.1	421.3	2.62	655	27.3	412.4	2.57	646	27.5	405.2	2.52
160	166	639	28.4	27.6	23.6	26.8	28.7	3.61	6.9	15.6	0.30	10.67	40.4	84	3.96	0.147	0.138	7.6	0.56	3838	3135	190	68	C	G	0.6718	429.3	2.59	639	27.6	421.2	2.54	632	27.8	412.5	2.49	625	28.0	405.8	2.45
165	171	617	28.8	28.1	23.8	27.0	28.9	3.66	7.0	15.6	0.31	10.97	40.2	83	4.03	0.149	0.139	7.5	0.56	3823	3135	188	68	C	G	0.6953	429.0	2.51	617	28.1	421.1	2.47	611	28.2	412.4	2.42	604	28.4	406.0	2.38
170	176	596	29.3	28.5	24.0	27.2	29.1	3.71	7.1	15.7	0.31	11.26	40.1	82	4.10	0.151	0.141	7.4	0.56	3810	3135	185	67	C	G	0.7181	428.0	2.44	596	28.5	420.2	2.39	591	28.6	411.7	2.34	585	28.8	405.5	2.31
175	181	577	29.7	28.9	24.2	27.4	29.2	3.76	7.1	15.7	0.31	11.54	39.9	81	4.16	0.152	0.142	7.3	0.56	3799	3135	183	67	C	G	0.7404	427.2	2.36	577	28.9	419.4	2.32	572	29.1	411.0	2.28	567	29.2	405.1	2.24
180	186	560	30.1	29.3	24.4	27.5	29.4	3.80	7.2	15.7	0.31	11.82	39.8	80	4.23	0.154	0.144	7.3	0.56	3789	3135	181	66	C	G	0.7620	426.7	2.30	560	29.3	419.0	2.26	556	29.5	410.6	2.21	551	29.6	405.1	2.18
SI = 19 m Initial Density = 15000 stems/ha																																							
5	11	14482	1.3	1.3	2.3	3.2	3.4	0.70	1.4	0.7	0.66	0.38	2.1	197	0.83	0.259	0.243	1.8	0.03	1972	4083	111	55	C	G	0.0002	2.4	0.23	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	13342	2.8	2.6	3.8	5.3	5.8	0.79	1.8	1.6	0.52	0.50	8.1	148	0.87	0.163	0.150	4.8	0.10	2648	4083	200	67	C	G	0.0012	15.5	0.99	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	11850	4.1	3.8	5.2	7.3	8.0	0.91	2.1	2.7	0.43	0.66	15.4	136	0.92	0.125	0.114	7.6	0.19	3296	4083	274	79	D	G	0.0035	41.4	2.01	61	7.9	0.7	0.03	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	10273	5.3	5.0	6.6	9.2	10.2	1.03	2.3	3.7	0.38	0.86	22.5	130	0.99	0.107	0.097	9.8	0.28	3838	4083	327	88	D	G	0.0075	77.0	3.00	941	8.2	14.4	0.56	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	31	8789	6.5	6.1	8.0	10.9	12.1	1.15	2.5	4.7	0.34	1.08	28.8	126	1.07	0.098	0.088	11.3	0.36	4252	4083	360	95	D	G	0.0133	117.3	3.83	2533	8.6	52.0	1.70	19	12.7	1.1	0.04	1	14.3	0.0	0.00
30	36	7484	7.6	7.2	9.2	12.5	13.8	1.27	2.7	5.7	0.32	1.33	33.8	122	1.16	0.093	0.084	12.3	0.43	4548	4083	377	100	D	G	0.0212	158.5	4.45	3709	9.2	101.4	2.85	160	12.9	10.9	0.31	17	14.5	1.3	0.04
35	41	6379	8.7	8.3	10.3	13.8	15.3	1.40	2.9	6.5	0.31	1.60	37.8	119	1.25	0.091	0.082	12.8	0.48	4744	4083	384	102	D	G	0.0311	198.1	4.88	4115	9.8	150.2	3.70	509	13.3	39.2	0.96	112	14.8	9.7	0.24
40	46	5461	9.8	9.3	11.4	15.1	16.7	1.51	3.1	7.3	0.30	1.89	40.8	117	1.35	0.090	0.081	13.1	0.52	4865	4083	382	103	D	G	0.0429	234.5	5.14	4104	10.5	194.9	4.27	1015	13.6	87.0	1.91	330	15.1	32.1	0.70
45	51	4705	10.8	10.3	12.3	16.2	17.9	1.63	3.3	8.1	0.29	2.20	43.0	114	1.46	0.090	0.081	13.1	0.55	4928	4083	377	103	D	G	0.0568	267.1	5.28	3881	11.3	234.1	4.62	1434	14.0	138.9	2.74	666	15.4	70.8	1.40
50	56	4083	11.8	11.3	13.2	17.2	19.0	1.74	3.5	8.8	0.28	2.51	44.5	112	1.56	0.091	0.082	13.0	0.57	4950	4083	368	103	D	G	0.0724	295.8	5.32	3572	12.1	267.8	4.81	1723	14.5	188.9	3.40	970	15.7	115.5	2.08
55	61	3570	12.7	12.2	14.0	18.0	20.0	1.85	3.7	9.4	0.28	2.84	45.6	110	1.67	0.093	0.084	12.8	0.59	4942	4083	358	101	D	G	0.0899	320.8	5.29	3245	12.9	296.5	4.89	1883	15.0	232.8	3.84	1215	16.2	161.3	2.66
60	66	3146	13.7	13.1	14.8	18.9	20.8	1.96	3.9	10.0	0.28	3.17	46.2	109	1.78	0.095	0.086	12.5	0.60	4914	4083	346	100	D	G	0.1088	342.2	5.21	2937	13.7	320.8	4.89	1940	15.5	269.8	4.11	1381	16.6	204.0	3.11
65	71	2793	14.6	14.0	15.5	19.6	21.6	2.06	4.1	10.6	0.27	3.51	46.6	107	1.89	0.097	0.087	12.2	0.60	4871	4083	335	98	D	G	0.1291	360.5	5.10	2653	14.4	341.3	4.83	1924	16.1	300.1	4.25	1471	17.1	241.4	3.42
70	76	2497	15.4	14.9	16.1	20.3	22.4	2.16	4.2	11.1	0.27	3.86	46.8	106	2.00	0.099	0.090	11.9	0.61	4820	4083	324	96	D	G	0.1506	376.0	4.97	2401	15.2	358.5	4.74	1865	16.7	324.8	4.29	1505	17.6	273.3	3.61
75	81	2247	16.3	15.7	16.7	20.9	23.0	2.26	4.4	11.6	0.27	4.20	46.8	104	2.11	0.101	0.092	11.6	0.61	4762	4083	313	94	D	G	0.1731	389.0	4.82	2181	16.0	372.9	4.62	1783	17.3	344.8	4.28	1500	18.1	300.0	3.72
80	86	2034	17.1	16.5	17.3	21.4	23.6	2.35	4.6	12.0	0.27	4.55	46.7	103	2.22	0.103	0.094	11.3	0.61	4702	4083	303	93	D	G	0.1966	399.8	4.67	1986	16.7	384.9	4.49	1689	17.9	361.0	4.22	1466	18.6	322.0	3.76
85	91	1853	17.9	17.2	17.8	21.9	24.1	2.44	4.7	12.4	0.27	4.89	46.5	102	2.32	0.106	0.096	11.0	0.61	4641	4083	293	91	D	G	0.2206	408.8	4.51	1819	17.5	394.8	4.36	1594	18.5	374.0	4.13	1418	19.2	340.0	3.75
90	96	1696	18.6	18.0	18.3	22.4	24.6	2.52	4.9	12.7	0.28	5.24	46.2	100	2.43	0.108	0.099	10.7	0.60	4579	4083	284	89	D	G	0.2453	416.1	4.35	1671	18.2	403.0	4.21	1499	19.1	384.6	4.02	1359	19.7	354.8	3.71
95	101	1561	19.3	18.7	18.7	22.9	25.1	2.60	5.0	13.1	0.28	5.58	45.9	99	2.53	0.111	0.101	10.4	0.60	4519	4083	275	87	D	G	0.2704	422.1	4.19	1542	18.9	409.6	4.07	1410	19.7	393.1	3.91	1298	20.2	366.8	3.64
100	106	1444	20.0	19.4	19.2	23.3	25.5	2.68	5.2	13.4	0.28	5.92	45.5	98	2.63	0.113	0.103	10.2	0.60	4461	4083	267	86	D	G	0.2956	426.9	4.04	1430	19.5	415.0	3.93	1327	20.2	399.9	3.79	1237	20.8	376.6	3.57
105	111	1341	20.7	20.0	19.6	23.7	25.9	2.76	5.3	13.6	0.28	6.26	45.2	97	2.73	0.115	0.105	9.9	0.60	4404	4083	259	84	D	G	0.3212	430.7	3.89	1330	20.2	419.2	3.79	1249	20.8	405.3	3.66	1176	21.3	384.5	3.48
110	116	1250	21.4	20.7	19.9	24.0	26.2	2.83	5.5	13.9	0.28	6.60	44.8	96	2.83	0.118	0.108	9.7	0.59	4351	4083	252	82	D	G	0.3469	433.6	3.75	1242	20.8	422.6	3.65	1176	21.4	409.5	3.54	1116	21.8	390.9	3.38
115	121	1170	22.0	21.3	20.3	24.3	26.6	2.90	5.6	14.1	0.28	6.93	44.5	95	2.92	0.120	0.110	9.5	0.59	4300	4083	246	81	D	G	0.3725	435.8	3.61	1162	21.4	425.1	3.52	1109	21.9	412.8	3.42	1061	22.3	396.0	3.28
120	126	1099	22.6	21.9	20.6	24.6	26.9	2.97	5.7	14.3	0.28	7.25	44.1	94	3.02	0.122	0.112	9.3	0.59	4252	4083	240	80	D	G	0.3979	437.3	3.48	1095	22.0	427.0	3.40	1051	22.5	415.3	3.31	1011	22.9	400.1	3.18
125	131	1036	23.2	22.5	20.9	24.9	27.2	3.04	5.8	14.5	0.28	7.57	43.8	93	3.11	0.125	0.114	9.1	0.59	4207	4083	234	78	D	G	0.4231	438.3	3.36	1033	22.6	428.3	3.28	997	23.0	417.1	3.19	963	23.4	403.2	3.09
130	136	979	23.8	23.1	21.2	25.2	27.4	3.10	6.0	14.6	0.29	7.89	43.4	91	3.20	0.127	0.116	8.9	0.58	4165	4083	229	77	D	G	0.4483	438.9	3.24	978	23.1	429.2	3.16	948	23.5	418.4	3.08	920	23.8	405.6	2.99
135	141	929	24.3	23.6	21.5	25.5	27.7	3.16	6.1	14.8	0.29	8.20	43.1	91	3.28	0.129	0.118	8.7	0.58	4125	4083	224	76	D	G	0.4727	439.1	3.12	926	23.7	429.6	3.05	901	24.0	419.2	2.98	877	24.3	407.4	2.90
140	146	883	24.8	24.1	21.8	25.7	27.9	3.22	6.2	14.9	0.29	8.51	42.8	90	3.37	0.131	0.120	8.6	0.58	4088	4083	219	75	D	G	0.4972	439.0	3.01	880	24.2	429.8	2.95	859	24.5	419.6	2.88	839	24.8	408.7	2.81
145	151	842	25.4	24.6	22.0	25.9	28.2	3.28	6.3	15.0	0.29	8.82	42.5	89	3.45	0.133	0.122	8.4	0.58	4054	4083	215	74	D	G	0.5210	438.7	2.91	838	24.7	429.6	2.85	821	25.0	419.7	2.79	803	25.2	409.6	2.72
150	156	804	25.9	25.1	22.2	26.1	28.4	3.33	6.4	15.1	0.29	9.11	42.2	88	3.53	0.135	0.124	8.3	0.57	4023	4083	211	73	D	G	0.5449	438.1	2.81	803	25.2	429.2	2.76	787	25.4	419.5	2.70	773	25.7	410.1	2.64
155	161	770	26.3	25.6	22.5	26.3	28.6	3.39	6.5	15.2	0.30	9.41	42.0	87	3.60	0.137	0.126	8.2	0.57	3994	4083	207	72	D	G	0.5679	437.3	2.72	768	25.6	428.6	2.67	755	25.9	419.1	2.61	743	26.1	410.3	2.55
160	166	739	26.8	26.1	22.7	26.5	28.7	3.44	6.6	15.3	0.30	9.69	41.7	86	3.68	0.139	0.128	8.1	0.57	3967	4083	204	72	D	G	0.5905	436.4	2.63	739	26.1	427.8	2.58	727	26.4	418.5	2.53	715	26.6	410.1	2.48
165	171	711	27.3	26.5	22.9	26.7	28.9	3.49	6.6	15.3	0.30	9.98	41.5	85	3.75	0.140	0.130	7.9	0.57	3943	4083	200	71	D	G	0.6124	435.4	2.55	709	26.5	426.9	2.50	699	26.8	417.7	2.45	688	27.0	409.9	2.40
170	176	684	27.7	26.9	23.1	26.9	29.1	3.54	6.7	15.4	0.30	10.26	41.3	84	3.82	0.142	0.131	7.8	0.57	3921	4083	197	70	D	G	0.6348	434.2	2.47	683	27.0	425.9	2.42	674	27.2	416.9	2.37	665	27.4	409.5	2.33
175	181	661	28.1	27.4	23.2	27.0	29.2	3.59	6.8	15.4	0.30	10.53	41.1	83	3.89	0.144	0.133	7.7	0.56	3900	4083	194	70	C	G	0.6551	433.0	2.40	661	27.4	424.8	2.35	654	27.6	415.9	2.30	645	27.8	408.9	2.26
180	186	639	28.6	27.8	23.4	27.2	29.4	3.63	6.9	15.4	0.31	10.80	40.9	82	3.96	0.146	0.135	7.7	0.56	3882	4083	192	69	C	G	0.6757	431.8	2.33	638	27.8	423.7	2.28	631	28.0	414.9	2.24	623	28.2	408.2	2.20

Table A107. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume) N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	Util. std. = 8/6 N	D	V/ha	Mai	Util. std. = 13/7 N	D	V/ha	Mai	Util. std = 15/10 N	D	V/ha	Mai
SI = 19 m Initial Density = 20000 stems/ha																																								
5	11	19234	1.2	1.1	2.2	3.2	3.4	0.69	1.3	0.7	0.64	0.37	2.3	212	0.72	0.226	0.211	2.0	0.03	2540	4942	137	72	D	G	0.0001	2.5	0.24	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	17559	2.5	2.4	3.7	5.3	5.8	0.78	1.7	1.6	0.50	0.48	9.0	155	0.75	0.143	0.131	5.6	0.11	3284	4942	241	84	D	G	0.0009	16.6	1.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	15404	3.8	3.5	5.1	7.3	8.0	0.88	1.9	2.6	0.42	0.62	17.0	141	0.81	0.110	0.100	8.8	0.21	3962	4942	324	96	D	G	0.0029	44.1	2.14	21	7.9	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	13177	4.9	4.6	6.4	9.2	10.2	0.99	2.2	3.6	0.36	0.79	24.8	134	0.87	0.095	0.086	11.2	0.31	4499	4942	382	105	D	G	0.0062	81.3	3.17	655	8.1	9.3	0.36	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	31	11129	6.0	5.7	7.7	10.9	12.1	1.10	2.4	4.6	0.33	0.99	31.4	129	0.95	0.087	0.078	12.8	0.40	4887	4942	415	110	D	G	0.0111	123.1	4.02	2322	8.4	43.0	1.40	5	12.6	0.3	0.01	0	0.0	0.0	0.00
30	36	9367	7.1	6.7	8.9	12.4	13.8	1.22	2.5	5.5	0.31	1.21	36.8	125	1.03	0.083	0.075	13.8	0.47	5145	4942	431	114	D	G	0.0176	165.3	4.64	3856	8.9	93.2	2.62	79	12.8	5.1	0.14	6	14.4	0.4	0.01
35	41	7903	8.1	7.7	10.0	13.7	15.3	1.33	2.7	6.3	0.30	1.46	40.8	122	1.12	0.082	0.073	14.3	0.52	5301	4942	434	115	D	G	0.0260	205.4	5.05	4529	9.5	144.7	3.56	336	13.1	24.8	0.61	52	14.6	4.4	0.11
40	46	6706	9.1	8.7	11.0	15.0	16.7	1.44	2.9	7.1	0.29	1.72	43.8	119	1.22	0.082	0.073	14.5	0.56	5381	4942	430	115	D	G	0.0361	242.2	5.31	4655	10.1	192.2	4.21	815	13.3	66.1	1.45	204	14.9	18.9	0.41
45	51	5733	10.1	9.6	11.9	16.0	17.9	1.55	3.1	7.8	0.28	1.99	45.9	117	1.32	0.082	0.074	14.5	0.59	5406	4942	421	114	D	G	0.0480	275.0	5.43	4476	10.8	233.7	4.62	1286	13.7	116.7	2.30	497	15.1	50.0	0.99
50	56	4942	11.1	10.6	12.7	17.0	19.0	1.66	3.3	8.5	0.28	2.28	47.4	114	1.42	0.084	0.075	14.3	0.61	5392	4942	409	113	D	G	0.0615	303.7	5.46	4157	11.5	269.2	4.84	1663	14.1	169.0	3.04	816	15.4	90.9	1.63
55	61	4296	12.0	11.5	13.5	17.9	20.0	1.77	3.5	9.1	0.27	2.58	48.4	112	1.53	0.085	0.076	14.0	0.62	5353	4942	396	111	D	G	0.0765	328.6	5.42	3797	12.2	299.2	4.93	1910	14.6	216.8	3.58	1108	15.8	136.4	2.25
60	66	3765	12.9	12.3	14.3	18.7	20.8	1.87	3.6	9.7	0.27	2.88	48.9	111	1.63	0.087	0.078	13.6	0.63	5296	4942	382	108	D	G	0.0930	350.0	5.33	3438	13.0	324.4	4.94	2033	15.1	257.8	3.93	1329	16.2	181.0	2.76
65	71	3326	13.7	13.2	14.9	19.4	21.6	1.97	3.8	10.2	0.27	3.19	49.2	109	1.73	0.089	0.080	13.3	0.64	5227	4942	368	106	D	G	0.1107	368.2	5.21	3109	13.7	345.6	4.89	2067	15.6	291.8	4.13	1477	16.6	221.6	3.14
70	76	2960	14.6	14.0	15.6	20.1	22.4	2.06	4.0	10.7	0.27	3.51	49.3	107	1.84	0.092	0.082	12.9	0.64	5152	4942	355	104	D	G	0.1296	383.6	5.07	2811	14.4	363.3	4.80	2037	16.1	319.5	4.22	1555	17.1	257.0	3.40
75	81	2653	15.4	14.8	16.1	20.7	23.0	2.15	4.2	11.2	0.27	3.82	49.2	106	1.94	0.094	0.084	12.5	0.64	5073	4942	342	101	D	G	0.1495	396.5	4.92	2550	15.1	378.0	4.69	1970	16.6	341.9	4.24	1583	17.5	286.9	3.56
80	86	2393	16.1	15.5	16.7	21.2	23.6	2.24	4.3	11.6	0.27	4.14	48.9	105	2.04	0.096	0.087	12.2	0.64	4993	4942	330	99	D	G	0.1702	407.2	4.76	2320	15.8	390.2	4.56	1884	17.2	360.0	4.20	1574	18.0	311.8	3.64
85	91	2171	16.9	16.3	17.2	21.8	24.1	2.33	4.5	12.0	0.27	4.46	48.6	103	2.15	0.099	0.089	11.8	0.64	4913	4942	318	97	D	G	0.1917	416.1	4.59	2119	16.5	400.3	4.42	1787	17.7	374.4	4.13	1539	18.5	332.3	3.67
90	96	1981	17.6	17.0	17.6	22.2	24.6	2.41	4.6	12.4	0.27	4.78	48.3	102	2.25	0.101	0.091	11.5	0.63	4835	4942	307	95	D	G	0.2137	423.3	4.43	1942	17.2	408.5	4.27	1686	18.3	386.0	4.04	1488	19.0	349.1	3.65
95	101	1817	18.3	17.7	18.1	22.7	25.1	2.49	4.8	12.7	0.27	5.10	47.9	101	2.35	0.104	0.094	11.2	0.63	4759	4942	297	93	D	G	0.2362	429.1	4.26	1786	17.9	415.2	4.13	1589	18.8	395.3	3.93	1430	19.5	362.8	3.61
100	106	1674	19.0	18.3	18.5	23.1	25.5	2.56	4.9	13.0	0.27	5.42	47.5	100	2.44	0.106	0.096	10.9	0.62	4686	4942	288	91	D	G	0.2591	433.7	4.11	1651	18.5	420.5	3.98	1497	19.4	402.7	3.81	1368	20.0	374.0	3.54
105	111	1550	19.7	19.0	18.9	23.4	25.9	2.64	5.1	13.3	0.27	5.73	47.0	99	2.54	0.108	0.098	10.6	0.62	4616	4942	279	89	D	G	0.2821	437.3	3.95	1531	19.1	424.7	3.84	1408	19.9	408.5	3.69	1304	20.5	382.9	3.46
110	116	1441	20.3	19.6	19.2	23.8	26.2	2.71	5.2	13.5	0.28	6.04	46.6	97	2.63	0.111	0.100	10.3	0.62	4550	4942	271	87	D	G	0.3053	440.0	3.81	1428	19.8	428.0	3.70	1329	20.5	413.0	3.57	1243	21.0	390.2	3.37
115	121	1344	20.9	20.2	19.6	24.1	26.6	2.78	5.3	13.7	0.28	6.35	46.1	96	2.73	0.113	0.103	10.1	0.61	4487	4942	263	85	D	G	0.3289	442.0	3.66	1333	20.3	430.4	3.57	1254	21.0	416.4	3.45	1183	21.5	395.9	3.28
120	126	1259	21.5	20.8	19.9	24.4	26.9	2.85	5.5	13.9	0.28	6.66	45.7	95	2.82	0.115	0.105	9.9	0.61	4427	4942	256	84	D	G	0.3521	443.3	3.53	1252	20.9	432.2	3.44	1187	21.5	419.0	3.34	1128	21.9	400.5	3.19
125	131	1183	22.1	21.4	20.2	24.7	27.2	2.91	5.6	14.1	0.28	6.96	45.3	94	2.91	0.118	0.107	9.6	0.60	4371	4942	250	82	D	G	0.3754	444.1	3.40	1176	21.5	433.3	3.32	1124	22.0	420.9	3.22	1075	22.4	404.0	3.09
130	136	1115	22.6	21.9	20.5	25.0	27.4	2.97	5.7	14.3	0.28	7.26	44.9	93	2.99	0.120	0.109	9.4	0.60	4319	4942	243	81	D	G	0.3986	444.4	3.28	1108	22.0	434.0	3.20	1064	22.5	422.1	3.11	1022	22.9	406.7	3.00
135	141	1055	23.2	22.5	20.8	25.2	27.7	3.03	5.8	14.4	0.28	7.56	44.5	92	3.08	0.122	0.111	9.2	0.59	4270	4942	238	80	D	G	0.4212	444.4	3.16	1050	22.5	434.2	3.09	1012	23.0	422.8	3.01	978	23.3	408.7	2.91
140	146	1000	23.7	23.0	21.0	25.4	27.9	3.09	5.9	14.6	0.29	7.85	44.1	91	3.16	0.124	0.113	9.1	0.59	4224	4942	232	78	D	G	0.4440	444.0	3.05	997	23.0	434.1	2.98	966	23.5	423.1	2.91	936	23.8	410.1	2.82
145	151	950	24.2	23.5	21.3	25.7	28.2	3.15	6.0	14.7	0.29	8.14	43.7	90	3.24	0.126	0.115	8.9	0.59	4181	4942	227	77	D	G	0.4666	443.3	2.94	947	23.5	433.7	2.88	921	23.9	423.0	2.81	895	24.2	411.0	2.73
150	156	906	24.7	24.0	21.5	25.9	28.4	3.20	6.1	14.8	0.29	8.42	43.4	89	3.32	0.128	0.117	8.7	0.58	4141	4942	223	76	D	G	0.4883	442.4	2.84	901	24.0	433.0	2.78	878	24.4	422.6	2.72	857	24.7	411.5	2.64
155	161	865	25.2	24.4	21.7	26.1	28.6	3.26	6.2	14.9	0.29	8.70	43.1	88	3.40	0.130	0.119	8.6	0.58	4104	4942	218	75	D	G	0.5103	441.4	2.75	863	24.5	432.2	2.69	843	24.8	422.0	2.63	824	25.1	411.6	2.56
160	166	828	25.6	24.9	21.9	26.3	28.7	3.31	6.3	15.0	0.29	8.98	42.7	88	3.48	0.132	0.121	8.4	0.58	4070	4942	214	74	D	G	0.5316	440.2	2.66	824	24.9	431.1	2.60	806	25.3	421.2	2.54	790	25.5	411.4	2.48
165	171	794	26.1	25.3	22.1	26.4	28.9	3.36	6.4	15.0	0.30	9.25	42.5	87	3.55	0.134	0.123	8.3	0.57	4038	4942	211	73	D	G	0.5526	438.8	2.57	791	25.4	430.0	2.52	775	25.7	420.3	2.46	760	25.9	411.1	2.41
170	176	763	26.5	25.8	22.3	26.6	29.1	3.41	6.5	15.1	0.30	9.52	42.2	86	3.62	0.136	0.124	8.2	0.57	4009	4942	207	73	D	G	0.5733	437.4	2.49	762	25.8	428.7	2.44	749	26.1	419.2	2.39	736	26.3	410.5	2.34
175	181	735	27.0	26.2	22.5	26.8	29.2	3.45	6.6	15.1	0.30	9.78	41.9	85	3.69	0.138	0.126	8.1	0.57	3982	4942	204	72	D	G	0.5931	435.9	2.41	735	26.2	427.3	2.37	723	26.5	418.0	2.31	711	26.7	409.8	2.27
180	186	709	27.4	26.6	22.6	26.9	29.4	3.50	6.6	15.2	0.30	10.04	41.7	84	3.76	0.139	0.128	8.0	0.57	3957	4942	201	71	D	G	0.6126	434.3	2.34	707	26.6	425.9	2.29	697	26.9	416.7	2.24	686	27.1	409.0	2.20
SI = 19 m Initial Density = 30000 stems/ha																																								
5	11	28687	1.1	1.0	2.1	3.2	3.4	0.68	1.2	0.7	0.61	0.36	2.5	237	0.59	0.186	0.172	2.4	0.04	3641	6503	184	104	D	G	0.0001	2.7	0.25	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	25845	2.2	2.1	3.5	5.3	5.8	0.75	1.5	1.6	0.48	0.45	10.3	167	0.62	0.118	0.108	6.8	0.13	4467	6503	312	116	D	G	0.0007	18.0	1.15	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	22278	3.3	3.1	4.8	7.3	8.0	0.84	1.7	2.5	0.40	0.57	19.5	149	0.67	0.092	0.083	10.7	0.25	5148	6503	410	126	D	G	0.0021	47.5	2.30	2	7.8	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	18705	4.4	4.1	6.1	9.1	10.2	0.94	1.9	3.5	0.35	0.71	28.1	140	0.73	0.080	0.072	13.4	0.36	5636	6503	473	133	D	G	0.0046	86.6	3.38	287	7.9	3.7	0.14	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	31	15526	5.4	5.1	7.3	10.8	12.1	1.04	2.1	4.4	0.32	0.88	35.3	134	0.80	0.074	0.066	15.2	0.46	5945	6503	505	136	D	G	0.0084	129.7	4.23	1737	8.2	28.1	0.92	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	36	12867	6.4	6.0	8.4	12.3	13.8	1.14	2.3	5.2	0.30	1.06	40.9	129	0.88	0.072	0.064	16.2	0.53	6115	6503	517	137	D	G	0.0134	172.6	4.84	3689	8.5	75.4	2.12	18	12.6	1.1	0.03	0	0.0	0.0	0.00
35	41	10712	7.3	6.9	9.4	13.6	15.3	1.25	2.4	5.9	0.29	1.27	45.0	126	0.97	0.071	0.063	16.6	0.58	6186	6503	515	136	D	G	0.0199	212.9	5.24	4862	9.0	128.8	3.17	137	12.8	9.6	0.24	11	14.5	0.9	0.02
40	46	8986	8.2	7.8	10.3	14.8	16.7	1.35	2.6	6.7	0.28	1.49	48.0	122	1.05	0.071	0.063	16.7	0.62	6187	6503	505	134	D	G	0.0278	249.4	5.47	5329	9.5	179.9	3.94	481	13.0	36.4	0.80	74	14.7	6.4	0.14
45	51	7608	9.2	8.7	11.2	15.9	17.9	1.45	2.8	7.3	0.27	1.73	50.1	120	1.15	0.072	0.064	16.5	0.65	6143	6503	490	131	D	G	0.0371	281.9	5.57	5318	10.1	225.0	4.44	941	13.3	78.5	1.55	257	14.8	24.1	0.48
50	56	6503	10.0	9.6	12.0	16.8	19.0	1.55	3.0	8.0	0.27	1.97	51.4	117	1.24	0.074	0.065	16.2	0.67	6068	6503	473	128	D	G	0.0477	310.2	5.58	5052	10.7	263.3	4.73	1406	13.7	129.1	2.32	530	15.1	54.1	0.97
55	61	5611	10.9	10.4	12.7	17.7	20.0	1.64	3.1	8.5	0.27	2.23	52.2	115	1.33	0.075	0.067	15.8	0.68	5974	6503	455	125	D	G	0.0597	334.7	5.52	4673	11.4	295.4	4.87	1777	14.0	179.9	2.97	838	15.4	93.5	1.54
60	66	4885	11.7	11.2	13.4	18.5	20.8	1.74	3.3	9.1	0.26	2.49	52.6	113	1.43	0.077	0.069	15.4	0.69	5869	6503	437	122	D	G	0.0728	355.7	5.42	4268	12.0	322.1	4.91	2026	14.4	226.2	3.45	1124	15.7	137.0	2.09
65	71	4289	12.5	12.0	14.1	19.2	21.6	1.83	3.5	9.6	0.26	2.76	52.8	111	1.53	0.080	0.071	14.9	0.69	5758	6503	419	118	D	G	0.0871	373.6	5.29	3872	12.7	344.4	4.88	2161	14.9	265.9	3.76	1353	16.0	179.8	2.55
70	76	3796	13.3	12.7	14.6	19.8	22.4	1.92	3.6	10.1	0.26	3.03	52.7	110	1.62	0.082	0.073	14.4	0.69	5644	6503	402	115	D	G	0.1024	388.7	5.14	3511	13.3	363.0	4.80	2209	15.3	298.8	3.95	1513	16.4	219.1	2.90
75	81	3384	14.0	13.5	15.2	20.4	23.0	2.00	3.8	10.5	0.26	3.31	52.4	108	1.72	0.084	0.075	14.0	0.68	5531	6503	386	112	D	G	0.1186	401.3	4.98	3184	14.0	378.3	4.69	2192	15.8	325.6	4.04	1610	16.8	253.7	3.15
80	86	3037	14.8	14.2	15.7	21.0	23.6	2.08	4.0	11.0	0.26	3.59	52.0	107	1.81	0.087	0.077	13.5	0.68	5420	6503	371	109	D	G	0.1356	411.8	4.81	2896	14.6	391.0	4.57	2136	16.2	347.3	4.06	1655	17.2	283.2	3.31
85	91	2743	15.5	14.9	16.2	21.5	24.1	2.16	4.1	11.3	0.26	3.87	51.6	106	1.91	0.089	0.079	13.1	0.67	5312	6503	357	106	D	G	0.1533	420.5	4.64	2640	15.2	401.4	4.43	2055	16.7	364.7	4.02	1661	17.6	308.0	3.40
90	96	2492	16.2	15.6	16.6	21.9	24.6	2.24	4.3	11.7	0.26	4.15	51.1	104	2.00	0.091	0.081	12.7	0.67	5208	6503	344	103	D	G	0.1715	427.5	4.47	2416	15.9	409.8	4.29	1961	17.2	378.6	3.96	1640	18.0	328.5	3.43
95	101	2276	16.8	16.2	17.0	22.3	25.1	2.32	4.4	12.0	0.27	4.43	50.6	103	2.10	0.094	0.084	12.3	0.66	5108	6503	332	101	D	G	0.1903	433.2	4.30	2214	16.5	416.7	4.14	1861	17.7	389.6	3.87	1598	18.5	345.4	3.43
100	106	2088	17.5	16.8	17.4	22.7	25.5	2.39	4.5	12.3	0.27	4.71	50.0	102	2.19	0.096	0.086	12.0	0.66	5013	6503	320	98	D	G	0.2096	437.6	4.14	2042	17.1	422.1	4.00	1763	18.2	398.4	3.77	1549	18.9	359.3	3.40
105	111	1925	18.1	17.4	17.8	23.1	25.9	2.46	4.7	12.6	0.27	4.99	49.4	101	2.28	0.099	0.088	11.6	0.65	4923	6503	309	96	D	G	0.2291	441.0	3.99	1890	17.7	426.4	3.85	1668	18.7	405.2	3.66	1491	19.3	370.5	3.35
110	116	1782	18.7	18.0	18.1	23.4	26.2	2.53	4.8	12.9	0.27	5.27	48.9	100	2.37	0.101	0.090	11.3	0.64	4837	6503	300	94	D	G	0.2489	443.5	3.84	1755	18.2	429.7	3.72	1576	19.1	410.6	3.55	1430	19.8	379.6	3.28
115	121	1657	19.3	18.6	18.5	23.7	26.6	2.59	4.9	13.1	0.27	5.55	48.3	99	2.46	0.103	0.092	11.0	0.64	4756	6503	290	92	D	G	0.2687	445.3	3.69	1636	18.8	432.1	3.58	1491	19.6	414.6	3.44	1370	20.2	386.9	3.21
120	126	1546	19.8	19.2	18.8	24.0	26.9	2.66	5.1	13.3	0.27	5.82	47.8	98	2.54	0.106	0.095	10.7	0.63	4680	6503	282	90	D	G	0.2887	446.4	3.55	1529	19.3	433.8	3.45	1410	20.1	417.7	3.32	1309	20.6	392.7	3.13
125	131	1447	20.4	19.7	19.0	24.3	27.2	2.72	5.2	13.5	0.28	6.09	47.2	97	2.63	0.108	0.097	10.5	0.62	4608	6503	274	88	D	G	0.3088	446.9	3.42	1434	19.8	434.8	3.33	1336	20.6	419.8	3.21	1252	21.1	397.2	3.04
130	136	1359	20.9	20.2	19.3	24.6	27.4	2.78	5.3	13.7	0.28	6.36	46.7	96	2.71	0.110	0.099	10.2	0.62	4540	6503	266	86	D	G	0.3289	447.0	3.30	1346	20.4	435.4	3.21	1265	21.0	421.3	3.11	1193	21.5	400.7	2.95
135	141	1280	21.4	20.7	19.6	24.8	27.7	2.84	5.4	13.8	0.28	6.63	46.2	95	2.80	0.113	0.101	10.0	0.61	4477	6503	260	85	D	G	0.3490	446.7	3.18	1269	20.9	435.4	3.10	1202	21.5	422.1	3.00	1141	21.9	403.3	2.87
140	146	1209	22.0	21.2	19.8	25.1	27.9	2.90	5.5	14.0	0.28	6.90	45.8	94	2.88	0.115	0.103	9.8	0.61	4417	6503	253	83	D	G	0.3690	446.1	3.06	1201	21.3	435.1	2.99	1144	21.9	422.5	2.90	1093	22.3	405.3	2.78
145	151	1145	22.4	21.7	20.0	25.3	28.2	2.95	5.6	14.1	0.28	7.16	45.3	93	2.96	0.117	0.105	9.6	0.60	4361	6503	247	82	D	G	0.3887	445.1	2.95	1139	21.8	434.5	2.88	1090	22.3	422.4	2.80	1046	22.7	406.6	2.70
150	156	1088	22.9	22.2	20.3	25.5	28.4	3.00	5.7	14.2	0.28	7.42	44.9	92	3.03	0.119	0.107	9.4	0.60	4309	6503	241	81	D	G	0.4081	444.0	2.85	1082	22.3	433.7	2.79	1039	22.8	421.9	2.71	1002	23.1	407.4	2.62
155	161	1035	23.4	22.7	20.5	25.7	28.6	3.06	5.8	14.3	0.29	7.68	44.5	91	3.11	0.121	0.109	9.2	0.59	4260	6503	236	79	D	G	0.4276	442.6	2.76	1029	22.7	432.6	2.69	992	23.2	421.2	2.62	958	23.6	407.6	2.54
160	166	987	23.8	23.1	20.7	25.9	28.7	3.11	5.9	14.4	0.29	7.93	44.1	90	3.18	0.123	0.111	9.0	0.59	4214	6503	231	78	D	G	0.4469	441.1	2.66	985	23.2	431.3	2.60	952	23.6	420.3	2.54	922	23.9	407.6	2.46
165	171	944	24.3	23.5	20.9	26.0	28.9	3.16	6.0	14.5	0.29	8.18	43.7	89	3.25	0.125	0.113	8.9	0.58	4172	6503	227	77	D	G	0.4655	439.4	2.58	939	23.6	429.8	2.52	912	24.0	419.9	2.46	885	24.3	407.3	2.39
170	176	904	24.7	24.0	21.0	26.2	29.1	3.20	6.1	14.6	0.29	8.43	43.3	88	3.33	0.127	0.114	8.7	0.58	4132	6503	222	76	D	G	0.4842	437.7	2.49	902	24.0	428.3	2.44	877	24.4	417.9	2.38	854	24.7	406.8	2.32
175	181	867	25.1	24.4	21.2	26.3	29.2	3.25	6.2	14.6	0.29	8.67	43.0	87	3.40	0.129	0.116	8.6	0.57	4095	6503	218	75	D	G	0.5027	435.8	2.41	866	24.4	426.6	2.36	845	24.8	416.5	2.31	825	25.1	406.1	2.25
180	186	834	25.5	24.8	21.4	26.5	29.4	3.29	6.3	14.7	0.30	8.91	42.7	87	3.46	0.131	0.118	8.4	0.57	4060	6503	215	74	D	G	0.5203	433.9	2.34	830	24.8	424.9	2.29	812	25.2	415.0	2.24	794	25.4	405.2	2.18

Table A108. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
		Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		SI = 19 m Initial Density = 50000 stems/ha																																						
5	11	47461	0.9	0.8	2.0	3.2	3.4	0.67	1.1	0.8	0.58	0.35	2.7	279	0.46	0.145	0.134	3.0	0.04	5759	9274	268	168	D	G	0.0001	2.8	0.26	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	42032	1.9	1.8	3.3	5.2	5.8	0.73	1.3	1.6	0.45	0.42	11.9	184	0.49	0.093	0.085	8.6	0.16	6626	9274	431	176	D	G	0.0005	19.4	1.24	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	35435	2.8	2.7	4.5	7.2	8.0	0.80	1.5	2.4	0.37	0.51	22.6	161	0.53	0.074	0.066	13.4	0.30	7202	9274	548	181	D	G	0.0014	50.6	2.45	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	29082	3.8	3.5	5.6	9.0	10.2	0.88	1.7	3.2	0.33	0.62	32.2	149	0.59	0.065	0.058	16.6	0.43	7507	9274	614	181	D	G	0.0031	90.9	3.55	45	7.8	0.5	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	31	23642	4.6	4.4	6.7	10.6	12.1	0.97	1.8	4.0	0.30	0.75	40.0	141	0.65	0.061	0.054	18.6	0.53	7614	9274	642	178	D	G	0.0057	134.2	4.38	784	7.9	10.8	0.35	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	36	19246	5.5	5.2	7.7	12.1	13.8	1.05	2.0	4.7	0.29	0.90	45.8	135	0.72	0.060	0.052	19.5	0.60	7593	9274	645	173	D	G	0.0092	176.5	4.95	2704	8.1	45.1	1.27	1	12.5	0.1	0.00	0	0.0	0.0	0.00
35	41	15783	6.4	6.0	8.6	13.4	15.3	1.14	2.1	5.4	0.28	1.06	50.0	130	0.80	0.059	0.052	19.8	0.66	7493	9274	634	168	D	G	0.0137	215.5	5.30	4499	8.5	94.4	2.32	20	12.6	1.3	0.03	0	0.0	0.0	0.00
40	46	13074	7.2	6.8	9.4	14.6	16.7	1.23	2.3	6.0	0.27	1.24	52.9	127	0.87	0.060	0.052	19.7	0.70	7349	9274	614	162	D	G	0.0192	250.6	5.49	5635	8.9	147.2	3.23	142	12.7	10.0	0.22	8	14.4	0.7	0.02
45	51	10951	8.0	7.6	10.2	15.6	17.9	1.32	2.4	6.6	0.27	1.43	54.8	123	0.96	0.061	0.053	19.4	0.72	7181	9274	590	156	D	G	0.0257	281.4	5.56	6098	9.4	195.9	3.87	421	12.9	32.0	0.63	60	14.5	5.2	0.10
50	56	9274	8.8	8.3	10.9	16.5	19.0	1.40	2.6	7.2	0.26	1.62	55.9	121	1.04	0.063	0.055	18.9	0.73	7001	9274	564	151	D	G	0.0332	308.3	5.54	6096	9.9	237.9	4.28	829	13.2	68.1	1.22	188	14.7	17.5	0.31
55	61	7938	9.5	9.1	11.6	17.4	20.0	1.49	2.8	7.7	0.26	1.83	56.5	118	1.12	0.065	0.056	18.3	0.74	6818	9274	539	145	D	G	0.0417	331.4	5.47	5830	10.4	273.1	4.50	1270	13.5	112.8	1.86	402	14.9	40.1	0.66
60	66	6862	10.3	9.8	12.2	18.1	20.8	1.57	2.9	8.2	0.26	2.04	56.7	116	1.21	0.067	0.058	17.7	0.74	6636	9274	514	140	D	G	0.0512	351.2	5.35	5442	10.9	302.3	4.61	1661	13.8	159.7	2.43	669	15.1	71.8	1.09
65	71	5986	11.0	10.5	12.8	18.8	21.6	1.65	3.1	8.7	0.26	2.26	56.6	114	1.29	0.069	0.060	17.1	0.74	6459	9274	491	135	D	G	0.0615	368.1	5.21	5011	11.4	326.4	4.62	1959	14.1	204.0	2.89	944	15.4	108.7	1.54
70	76	5267	11.7	11.2	13.3	19.5	22.4	1.73	3.2	9.1	0.26	2.48	56.3	113	1.38	0.071	0.062	16.5	0.74	6287	9274	469	130	D	G	0.0726	382.3	5.05	4586	12.0	346.3	4.58	2157	14.4	243.2	3.22	1190	15.7	147.2	1.95
75	81	4669	12.3	11.8	13.8	20.0	23.0	1.81	3.4	9.6	0.26	2.70	55.9	111	1.46	0.073	0.064	15.9	0.73	6123	9274	448	126	D	G	0.0845	394.3	4.89	4186	12.5	362.7	4.50	2266	14.8	276.6	3.43	1389	16.0	184.2	2.28
80	86	4169	13.0	12.5	14.3	20.6	23.6	1.88	3.5	9.9	0.26	2.93	55.3	110	1.55	0.075	0.066	15.4	0.72	5966	9274	429	122	D	G	0.0970	404.2	4.72	3818	13.1	376.1	4.39	2303	15.2	304.3	3.55	1532	16.3	218.1	2.55
85	91	3746	13.6	13.1	14.7	21.0	24.1	1.95	3.7	10.3	0.26	3.16	54.7	108	1.63	0.078	0.068	14.8	0.72	5818	9274	411	118	D	G	0.1101	412.4	4.55	3489	13.6	387.2	4.27	2292	15.5	327.0	3.61	1627	16.6	248.1	2.74
90	96	3387	14.3	13.7	15.1	21.5	24.6	2.02	3.8	10.6	0.26	3.39	54.1	107	1.72	0.080	0.070	14.3	0.71	5677	9274	394	115	D	G	0.1237	419.1	4.38	3185	14.2	396.1	4.14	2245	15.9	345.4	3.61	1678	16.9	274.0	2.87
95	101	3078	14.9	14.3	15.5	21.9	25.1	2.09	3.9	11.0	0.26	3.62	53.4	106	1.80	0.082	0.072	13.8	0.70	5543	9274	379	111	D	G	0.1379	424.5	4.22	2925	14.7	403.4	4.01	2175	16.3	360.2	3.58	1696	17.3	296.0	2.94
100	106	2812	15.4	14.8	15.8	22.3	25.5	2.16	4.1	11.3	0.26	3.85	52.7	105	1.89	0.085	0.074	13.4	0.69	5418	9274	365	108	D	G	0.1525	428.7	4.06	2696	15.2	409.2	3.87	2093	16.7	372.0	3.52	1689	17.6	314.5	2.98
105	111	2581	16.0	15.4	16.2	22.6	25.9	2.22	4.2	11.5	0.27	4.09	52.0	104	1.97	0.087	0.076	13.0	0.68	5299	9274	351	105	D	G	0.1674	432.0	3.90	2491	15.7	413.8	3.74	2005	17.1	381.4	3.45	1664	18.0	329.9	2.98
110	116	2379	16.6	15.9	16.5	22.9	26.2	2.29	4.3	11.8	0.27	4.32	51.3	103	2.05	0.089	0.078	12.6	0.67	5187	9274	339	103	D	G	0.1826	434.4	3.76	2307	16.3	417.4	3.61	1910	17.5	388.8	3.36	1624	18.3	342.7	2.96
115	121	2202	17.1	16.5	16.8	23.2	26.6	2.35	4.4	12.0	0.27	4.55	50.6	102	2.13	0.092	0.080	12.2	0.66	5082	9274	328	100	D	G	0.1980	436.0	3.61	2144	16.7	420.0	3.48	1819	17.9	394.6	3.27	1577	18.7	353.1	2.93
120	126	2045	17.6	17.0	17.0	23.5	26.9	2.41	4.6	12.2	0.27	4.78	49.9	101	2.21	0.094	0.082	11.9	0.65	4983	9274	317	98	D	G	0.2137	437.0	3.48	2001	17.2	421.8	3.36	1732	18.3	399.0	3.18	1527	19.0	361.6	2.88
125	131	1907	18.1	17.5	17.3	23.8	27.2	2.46	4.7	12.4	0.27	5.01	49.2	100	2.29	0.096	0.084	11.6	0.64	4890	9274	307	96	D	G	0.2294	437.5	3.35	1871	17.7	423.0	3.24	1649	18.7	402.3	3.08	1475	19.4	368.5	2.82
130	136	1783	18.6	18.0	17.6	24.0	27.4	2.52	4.8	12.6	0.27	5.24	48.6	99	2.37	0.099	0.086	11.3	0.64	4802	9274	298	93	D	G	0.2453	437.4	3.22	1750	18.2	423.7	3.12	1566	19.1	404.7	2.98	1417	19.8	374.0	2.76
135	141	1673	19.1	18.4	17.8	24.3	27.7	2.57	4.9	12.8	0.28	5.47	48.0	98	2.44	0.101	0.088	11.0	0.63	4720	9274	290	91	D	G	0.2612	437.0	3.11	1647	18.6	423.8	3.01	1491	19.5	406.3	2.89	1364	20.1	378.4	2.69
140	146	1574	19.6	18.9	18.0	24.5	27.9	2.63	5.0	13.0	0.28	5.69	47.4	97	2.52	0.103	0.090	10.7	0.62	4642	9274	282	90	D	G	0,2771	436.2	3.00	1553	19.1	423.6	2.91	1421	19.9	407.2	2.80	1311	20.5	381.8	2.62
145	151	1484	20.0	19.3	18.2	24.7	28.2	2.68	5.1	13.1	0.28	5.92	46.8	96	2.60	0.105	0.092	10.5	0.61	4570	9274	274	88	D	G	0.2933	435.2	2.89	1464	19.5	423.0	2.81	1348	20.3	407.4	2.70	1258	20.8	384.3	2.55
150	156	1404	20.5	19.8	18.4	24.9	28.4	2.73	5.2	13.2	0.28	6.14	46.3	95	2.67	0.107	0.094	10.2	0.61	4501	9274	267	86	D	G	0.3090	433.9	2.79	1388	19.9	422.1	2.71	1288	20.7	407.4	2.62	1210	21.2	386.2	2.48
155	161	1330	20.9	20.2	18.6	25.1	28.6	2.78	5.3	13.3	0.28	6.36	45.8	94	2.74	0.109	0.096	10.0	0.60	4437	9274	261	85	D	G	0.3251	432.4	2.69	1315	20.4	421.0	2.62	1229	21.1	407.1	2.53	1156	21.6	387.1	2.41
160	166	1264	21.4	20.6	18.8	25.3	28.7	2.83	5.4	13.4	0.29	6.58	45.3	93	2.81	0.111	0.098	9.8	0.59	4376	9274	255	83	D	G	0.3407	430.7	2.60	1252	20.8	419.7	2.53	1177	21.4	406.4	2.45	1113	21.9	388.0	2.34
165	171	1203	21.8	21.0	19.0	25.4	28.9	2.87	5.5	13.5	0.29	6.80	44.8	92	2.88	0.113	0.100	9.6	0.59	4320	9274	249	82	D	G	0.3565	428.9	2.51	1193	21.2	418.1	2.45	1128	21.8	405.5	2.38	1072	22.2	388.3	2.28
170	176	1148	22.2	21.4	19.1	25.6	29.1	2.92	5.6	13.6	0.29	7.02	44.3	91	2.95	0.115	0.101	9.4	0.58	4266	9274	243	81	D	G	0.3719	426.9	2.43	1141	21.6	416.5	2.37	1083	22.1	404.3	2.30	1034	22.6	388.4	2.21
175	181	1097	22.6	21.8	19.3	25.7	29.2	2.96	5.7	13.7	0.29	7.23	43.9	91	3.02	0.117	0.103	9.2	0.57	4216	9274	238	79	D	G	0.3873	424.9	2.35	1091	21.9	414.7	2.30	1041	22.5	403.0	2.23	996	22.9	388.1	2.15
180	186	1050	23.0	22.2	19.4	25.9	29.4	3.01	5.8	13.8	0.29	7.44	43.5	90	3.09	0.119	0.105	9.1	0.57	4169	9274	234	78	D	G	0.4027	422.8	2.28	1044	22.3	412.8	2.22	1001	22.8	401.5	2.16	962	23.2	387.6	2.09
		SI = 19 m Initial Density = 80000 stems/ha																																						
5	11	75416	0.7	0.6	1.9	3.1	3.4	0.67	1.0	0.8	0.55	0.35	2.8	332	0.36	0.116	0.106	3.4	0.05	8818	12975	381	262	D	G	0.0000	2.7	0.25	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	16	65729	1.6	1.5	3.0	5.2	5.8	0.71	1.1	1.5	0.42	0.40	13.3	203	0.39	0.075	0.068	10.5	0.19	9592	12975	580	261	D	G	0.0003	20.0	1.28	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	21	54299	2.4	2.3	4.1	7.1	8.0	0.77	1.3	2.3	0.35	0.47	25.2	173	0.43	0.060	0.053	16.2	0.34	9874	12975	710	253	D	G	0.0010	51.9	2.52	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	26	43675	3.2	3.0	5.1	8.9	10.2	0.83	1.4	3.0	0.31	0.55	35.7	158	0.48	0.054	0.047	19.9	0.48	9820	12975	775	242	D	G	0.0021	91.8	3.58	2	7.6	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	31	34879	4.0	3.8	6.1	10.5	12.1	0.90	1.6	3.7	0.29	0.66	43.8	148	0.54	0.051	0.044	21.9	0.59	9584	12975	793	228	D	G	0.0038	133.6	4.36	185	7.7	2.3	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	36	27974	4.8	4.5	7.0	12.0	13.8	0.98	1.7	4.3	0.28	0.77	49.7	141	0.60	0.050	0.043	22.8	0.67	9267	12975	783	216	D	G	0.0062	173.5	4.87	1326	7.9	18.6	0.52	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	41	22660	5.5	5.2	7.8	13.2	15.3	1.05	1.9	4.9	0.27	0.90	53.8	135	0.66	0.050	0.043	22.9	0.72	8923	12975	758	204	D	G	0.0093	209.7	5.16	3146	8.1	53.8	1.32	1	12.5	0.1	0.00	0	0.0	0.0	0.00
40	46	18581	6.2	5.9	8.5	14.4	16.7	1.13	2.0	5.4	0.27	1.04	56.4	131	0.73	0.051	0.044	22.6	0.75	8580	12975	726	193	D	G	0.0130	241.8	5.30	4854	8.4	100.4	2.20	18	12.5	1.2	0.03	0	0.0	0.0	0.00
45	51	15432	6.9	6.6	9.2	15.4	17.9	1.20	2.2	5.9	0.26	1.18	58.1	127	0.80	0.052	0.045	22.1	0.77	8249	12975	692	183	D	G	0.0175	269.8	5.33	5981	8.8	148.6	2.93	101	12.7	7.2	0.14	5	14.3	0.4	0.01
50	56	12975	7.6	7.2	9.8	16.3	19.0	1.28	2.3	6.4	0.26	1.34	59.0	124	0.88	0.054	0.046	21.4	0.78	7936	12975	657	174	D	G	0.0227	294.0	5.28	6507	9.2	192.6	3.46	300	12.8	22.6	0.41	33	14.4	2.8	0.05
55	61	11036	8.3	7.9	10.4	17.1	20.0	1.35	2.4	6.9	0.26	1.50	59.4	121	0.95	0.056	0.048	20.6	0.78	7643	12975	623	166	D	G	0.0285	314.8	5.19	6589	9.6	230.4	3.80	613	13.0	49.0	0.81	108	14.6	9.8	0.16
60	66	9487	8.9	8.5	11.0	17.8	20.8	1.42	2.6	7.3	0.26	1.67	59.4	119	1.03	0.058	0.049	19.9	0.78	7369	12975	592	158	D	G	0.0351	332.6	5.07	6399	10.0	262.1	3.99	987	13.2	84.0	1.28	246	14.8	23.8	0.36
65	71	8235	9.6	9.1	11.5	18.5	21.6	1.49	2.7	7.7	0.26	1.84	59.1	117	1.10	0.060	0.051	19.1	0.77	7113	12975	562	151	D	G	0.0422	347.7	4.92	6064	10.4	288.2	4.08	1360	13.5	123.0	1.74	442	14.9	45.1	0.64
70	76	7212	10.2	9.7	11.9	19.1	22.4	1.56	2.9	8.1	0.26	2.01	58.6	115	1.18	0.062	0.053	18.4	0.77	6875	12975	534	145	D	G	0.0500	360.6	4.77	5661	10.8	309.8	4.10	1680	13.7	162.0	2.14	668	15.1	72.2	0.95
75	81	6366	10.8	10.3	12.4	19.7	23.0	1.63	3.0	8.5	0.26	2.19	58.0	113	1.25	0.064	0.054	17.7	0.76	6654	12975	509	140	D	G	0.0583	371.3	4.60	5243	11.3	327.4	4.06	1931	14.0	198.4	2.46	896	15.4	102.6	1.27
80	86	5661	11.4	10.8	12.8	20.2	23.6	1.69	3.1	8.8	0.26	2.37	57.3	112	1.33	0.066	0.056	17.0	0.75	6447	12975	485	134	D	G	0.0672	380.4	4.44	4834	11.7	341.9	3.99	2105	14.3	230.7	2.69	1104	15.6	133.8	1.56
85	91	5068	11.9	11.4	13.1	20.6	24.1	1.76	3.3	9.2	0.26	2.56	56.5	110	1.40	0.068	0.058	16.4	0.74	6255	12975	463	130	D	G	0.0765	387.8	4.28	4450	12.2	353.8	3.90	2213	14.6	258.6	2.85	1281	15.8	164.2	1.81
90	96	4564	12.5	11.9	13.5	21.0	24.6	1.82	3.4	9.5	0.26	2.74	55.7	109	1.48	0.070	0.060	15.8	0.73	6075	12975	443	125	D	G	0.0863	394.0	4.12	4073	12.7	363.3	3.80	2265	14.9	282.2	2.95	1418	16.1	192.5	2.01
95	101	4134	13.0	12.4	13.8	21.4	25.1	1.88	3.5	9.8	0.26	2.93	54.9	108	1.56	0.073	0.062	15.2	0.72	5907	12975	425	121	D	G	0.0965	398.9	3.96	3757	13.1	371.3	3.69	2274	15.2	301.8	3.00	1518	16.3	218.0	2.17
100	106	3763	13.5	13.0	14.1	21.8	25.5	1.94	3.6	10.0	0.27	3.12	54.1	107	1.63	0.075	0.064	14.7	0.70	5750	12975	408	117	D	G	0.1070	402.8	3.81	3470	13.6	377.7	3.58	2251	15.5	317.9	3.01	1585	16.6	240.5	2.28
105	111	3442	14.0	13.5	14.4	22.1	25.9	2.00	3.8	10.3	0.27	3.30	53.2	106	1.70	0.077	0.066	14.2	0.69	5603	12975	392	114	D	G	0.1179	405.9	3.67	3213	14.0	382.8	3.46	2207	15.8	331.1	2.99	1625	16.9	260.2	2.35
110	116	3162	14.5	13.9	14.7	22.4	26.2	2.05	3.9	10.5	0.27	3.49	52.4	105	1.78	0.079	0.068	13.8	0.68	5465	12975	377	110	D	G	0.1291	408.1	3.53	2981	14.4	386.8	3.35	2148	16.1	341.8	2.96	1640	17.1	277.0	2.40
115	121	2916	15.0	14.4	14.9	22.7	26.6	2.11	4.0	10.8	0.27	3.68	51.6	104	1.85	0.081	0.070	13.3	0.67	5336	12975	364	107	D	G	0.1405	409.7	3.40	2771	14.9	389.8	3.23	2077	16.5	350.4	2.90	1636	17.4	291.4	2.42
120	126	2700	15.5	14.9	15.2	23.0	26.9	2.16	4.1	11.0	0.27	3.87	50.8	103	1.92	0.084	0.072	12.9	0.66	5215	12975	351	104	D	G	0.1521	410.7	3.27	2583	15.3	392.1	3.12	2002	16.8	357.2	2.84	1620	17.7	303.6	2.42
125	131	2508	15.9	15.3	15.4	23.3	27.2	2.21	4.2	11.2	0.27	4.06	50.1	102	2.00	0.086	0.073	12.5	0.65	5102	12975	339	102	D	G	0.1640	411.2	3.15	2411	15.7	393.7	3.01	1923	17.1	362.6	2.78	1591	18.0	313.8	2.40
130	136	2338	16.4	15.8	15.6	23.5	27.4	2.26	4.3	11.4	0.27	4.24	49.4	101	2.07	0.088	0.075	12.2	0.64	4995	12975	328	99	D	G	0.1759	411.2	3.03	2254	16.1	394.7	2.91	1845	17.4	366.8	2.70	1557	18.3	322.3	2.38
135	141	2186	16.8	16.2	15.8	23.7	27.7	2.31	4.4	11.5	0.28	4.43	48.7	100	2.14	0.090	0.077	11.9	0.63	4895	12975	318	97	D	G	0.1880	410.9	2.92	2117	16.5	395.2	2.81	1770	17.8	370.0	2.63	1518	18.6	329.3	2.34
140	146	2050	17.3	16.6	16.0	23.9	27.9	2.36	4.5	11.7	0.28	4.62	48.0	99	2.21	0.092	0.079	11.5	0.62	4801	12975	309	95	D	G	0.2001	410.2	2.82	1993	16.9	395.3	2.71	1696	18.1	372.3	2.56	1476	18.9	335.1	2.30
145	151	1927	17.7	17.0	16.2	24.1	28.2	2.41	4.6	11.9	0.28	4.81	47.3	98	2.28	0.094	0.081	11.3	0.61	4712	12975	300	93	D	G	0.2124	409.3	2.72	1879	17.3	395.1	2.62	1615	18.5	373.4	2.48	1432	19.1	339.8	2.26
150	156	1816	18.1	17.4	16.4	24.3	28.4	2.46	4.7	12.0	0.28	4.99	46.7	97	2.35	0.096	0.083	11.0	0.60	4629	12975	292	91	D	G	0.2247	408.1	2.62	1775	17.7	394.5	2.53	1547	18.8	374.5	2.41	1376	19.5	342.8	2.20
155	161	1716	18.5	17.8	16.6	24.5	28.6	2.50	4.8	12.1	0.28	5.18	46.1	97	2.41	0.099	0.085	10.7	0.60	4551	12975	284	89	D	G	0.2370	406.7	2.53	1681	18.0	393.6	2.45	1485	19.1	375.0	2.33	1334	19.8	345.9	2.15
160	166	1625	18.9	18.2	16.7	24.7	28.7	2.54	4.9	12.2	0.29	5.36	45.5	96	2.48	0.101	0.086	10.5	0.59	4477	12975	277	87	D	G	0.2493	405.1	2.45	1593	18.4	392.6	2.37	1421	19.4	375.2	2.27	1289	20.1	348.3	2.10
165	171	1542	19.3	18.6	16.9	24.8	28.9	2.59	5.0	12.3	0.29	5.54	45.0	95	2.55	0.103	0.088	10.2	0.58	4408	12975	270	85	D	G	0.2616	403.4	2.36	1514	18.8	391.3	2.29	1364	19.7	375.0	2.20	1246	20.3	350.1	2.05
170	176	1466	19.7	18.9	17.0	25.0	29.1	2.63	5.1	12.4	0.29	5.72	44.5	94	2.61	0.105	0.090	10.0	0.57	4342	12975	263	84	D	G	0.2739	401.6	2.29	1441	19.1	389.8	2.22	1311	20.0	374.5	2.13	1206	20.6	351.3	2.00
175	181	1397	20.0	19.3	17.2	25.1	29.2	2.67	5.2	12.5	0.29	5.91	44.0	93	2.68	0.107	0.091	9.8	0.57	4281	12975	257	82	D	G	0.2860	399.6	2.21	1376	19.5	388.3	2.15	1261	20.3	373.7	2.07	1167	20.9	352.2	1.95
180	186	1333	20.4	19.6	17.3	25.3	29.4	2.71	5.3	12.6	0.29	6.09	43.5	92	2.74	0.108	0.093	9.6	0.56	4223	12975	252	81	D	G	0.2983	397.6	2.14	1312	19.8	386.6	2.08	1211	20.6	372.7	2.01	1128	21.2	352.7	1.90

Table A109. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

SI = 20 m Initial Density = 800 stems/ha

Utilization standard (Util. std.) = 0/0 (total volume)

Bh age	Total age	N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA
5	10	796	3.3	3.1	2.8	3.4	3.6	0.84	2.4	0.5	0.83	0.56
10	15	786	6.2	5.8	4.8	5.8	6.1	1.12	3.6	1.4	0.71	1.03
15	20	772	8.8	8.3	6.8	8.0	8.5	1.40	4.5	2.7	0.61	1.62
20	25	754	11.0	10.5	8.7	10.2	10.8	1.65	5.1	4.1	0.55	2.27
25	30	733	13.1	12.4	10.4	12.1	12.8	1.88	5.5	5.5	0.50	2.95
30	35	710	14.9	14.2	12.0	13.8	14.6	2.09	5.8	6.7	0.46	3.63
35	40	686	16.6	15.9	13.5	15.3	16.2	2.28	6.1	7.9	0.43	4.32
40	45	661	18.1	17.4	14.8	16.7	17.6	2.45	6.3	8.9	0.41	4.99
45	50	637	19.5	18.8	16.1	17.9	18.9	2.61	6.5	9.8	0.39	5.66
50	55	613	20.8	20.1	17.2	19.0	20.0	2.76	6.7	10.7	0.38	6.30
55	60	590	22.0	21.3	18.2	20.0	21.0	2.90	6.8	11.4	0.37	6.93
60	65	568	23.1	22.4	19.1	20.9	21.9	3.02	7.0	12.1	0.36	7.54
65	70	547	24.2	23.4	19.9	21.7	22.7	3.14	7.1	12.7	0.36	8.13
70	75	528	25.2	24.4	20.7	22.5	23.4	3.25	7.2	13.2	0.35	8.70
75	80	509	26.1	25.3	21.4	23.1	24.1	3.36	7.3	13.7	0.35	9.25
80	85	492	27.0	26.2	22.1	23.7	24.7	3.45	7.5	14.1	0.34	9.78
85	90	477	27.8	27.0	22.7	24.3	25.2	3.55	7.6	14.5	0.34	10.29
90	95	462	28.5	27.8	23.2	24.8	25.7	3.63	7.7	14.8	0.34	10.79
95	100	449	29.3	28.5	23.7	25.3	26.2	3.71	7.7	15.1	0.34	11.26
100	105	436	29.9	29.2	24.2	25.7	26.6	3.79	7.8	15.4	0.33	11.72
105	110	425	30.6	29.8	24.6	26.1	27.0	3.86	7.9	15.6	0.33	12.16
110	115	415	31.2	30.4	25.0	26.5	27.4	3.93	8.0	15.8	0.33	12.59
115	120	405	31.8	31.0	25.4	26.8	27.7	3.99	8.0	16.0	0.33	13.00
120	125	396	32.4	31.6	25.8	27.2	28.0	4.06	8.1	16.1	0.33	13.40
125	130	388	32.9	32.1	26.1	27.5	28.3	4.11	8.2	16.3	0.33	13.78
130	135	380	33.4	32.6	26.4	27.8	28.6	4.17	8.2	16.4	0.33	14.15
135	140	373	33.9	33.1	26.7	28.0	28.8	4.22	8.3	16.5	0.33	14.50
140	145	366	34.3	33.6	27.0	28.3	29.1	4.27	8.3	16.6	0.33	14.85
145	150	360	34.8	34.0	27.2	28.5	29.3	4.32	8.4	16.6	0.33	15.18
150	155	355	35.2	34.4	27.5	28.7	29.5	4.37	8.4	16.7	0.33	15.50
155	160	349	35.6	34.8	27.7	28.9	29.7	4.41	8.5	16.8	0.33	15.81
160	165	345	36.0	35.2	27.9	29.1	29.9	4.46	8.5	16.8	0.33	16.11
165	170	340	36.4	35.6	28.1	29.3	30.1	4.50	8.5	16.8	0.33	16.41
170	175	336	36.7	36.0	28.3	29.5	30.2	4.54	8.6	16.8	0.33	16.69
175	180	332	37.1	36.3	28.5	29.7	30.4	4.57	8.6	16.9	0.34	16.96
180	185	328	37.4	36.6	28.7	29.8	30.5	4.61	8.6	16.9	0.34	17.23

Bh age	Total age	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai
5	10	0.7	107	3.54	1.037	0.993	0.4	0.01	171	613	14	4	V	G	0.0013	1.0	0.10
10	15	2.4	96	3.57	0.619	0.588	1.0	0.02	351	613	30	8	A	G	0.0081	6.4	0.42
15	20	4.7	94	3.60	0.447	0.423	1.6	0.05	571	613	47	12	A	G	0.0232	17.9	0.88
20	25	7.2	94	3.64	0.359	0.339	2.2	0.08	810	613	62	17	A	G	0.0462	34.8	1.37
25	30	9.8	93	3.69	0.306	0.289	2.7	0.11	1051	613	75	22	A	G	0.0764	56.0	1.84
30	35	12.4	93	3.75	0.272	0.257	3.2	0.14	1284	613	87	26	A	G	0.1124	79.8	2.26
35	40	14.8	92	3.82	0.249	0.236	3.6	0.17	1503	613	98	30	A	G	0.1531	105.0	2.60
40	45	17.0	91	3.89	0.233	0.221	4.0	0.20	1703	613	106	33	B	G	0.1971	130.3	2.87
45	50	19.1	91	3.96	0.221	0.210	4.3	0.23	1885	613	113	36	B	G	0.2436	155.2	3.08
50	55	20.9	90	4.04	0.212	0.202	4.6	0.25	2048	613	119	39	B	G	0.2917	178.8	3.23
55	60	22.5	89	4.12	0.206	0.196	4.8	0.28	2193	613	124	41	B	G	0.3407	201.0	3.33
60	65	23.9	88	4.20	0.201	0.192	5.0	0.30	2322	613	128	43	B	G	0.3901	221.6	3.39
65	70	25.1	87	4.28	0.197	0.188	5.1	0.32	2436	613	131	44	B	G	0.4397	240.5	3.42
70	75	26.3	87	4.35	0.194	0.186	5.2	0.34	2538	613	133	46	B	G	0.4886	258.0	3.42
75	80	27.2	86	4.43	0.192	0.184	5.3	0.36	2629	613	135	47	B	G	0.5369	273.3	3.40
80	85	28.1	85	4.51	0.190	0.183	5.4	0.38	2710	613	136	48	B	G	0.5841	287.4	3.37
85	90	28.9	84	4.58	0.188	0.181	5.5	0.39	2783	613	138	49	B	G	0.6306	300.8	3.33
90	95	29.6	83	4.65	0.188	0.181	5.5	0.41	2850	613	139	50	B	G	0.6755	312.1	3.27
95	100	30.2	83	4.72	0.187	0.180	5.6	0.42	2910	613	139	51	C	G	0.7192	322.9	3.22
100	105	30.7	82	4.79	0.186	0.180	5.6	0.43	2965	613	140	51	C	G	0.7612	331.9	3.15
105	110	31.3	81	4.85	0.186	0.180	5.6	0.45	3016	613	140	52	C	G	0.8021	340.9	3.09
110	115	31.8	80	4.91	0.185	0.179	5.7	0.46	3063	613	141	52	C	G	0.8414	349.2	3.03
115	120	32.2	80	4.97	0.185	0.179	5.7	0.47	3107	613	141	53	C	G	0.8790	356.0	2.96
120	125	32.6	79	5.03	0.185	0.179	5.7	0.49	3149	613	141	53	C	G	0.9154	362.5	2.89
125	130	33.0	78	5.08	0.185	0.179	5.7	0.50	3188	613	142	53	C	G	0.9503	368.7	2.83
130	135	33.3	78	5.13	0.185	0.179	5.8	0.51	3225	613	142	54	C	G	0.9834	373.7	2.76
135	140	33.6	77	5.18	0.185	0.180	5.8	0.52	3260	613	142	54	C	G	1.0155	378.8	2.70
140	145	33.9	76	5.23	0.185	0.180	5.8	0.53	3295	613	142	54	C	G	1.0459	382.8	2.63
145	150	34.2	76	5.27	0.185	0.180	5.8	0.54	3327	613	142	55	C	G	1.0753	387.1	2.57
150	155	34.5	75	5.31	0.185	0.180	5.8	0.55	3359	613	142	55	C	G	1.1031	391.6	2.52
155	160	34.7	74	5.35	0.185	0.180	5.8	0.56	3390	613	142	55	C	G	1.1298	394.3	2.46
160	165	35.1	74	5.38	0.185	0.180	5.9	0.57	3420	613	143	56	C	G	1.1554	398.6	2.41
165	170	35.3	73	5.42	0.185	0.180	5.9	0.58	3449	613	143	56	C	G	1.1797	401.1	2.35
170	175	35.6	73	5.46	0.185	0.181	5.9	0.59	3478	613	143	56	C	G	1.2030	404.2	2.31
175	180	35.8	72	5.49	0.185	0.181	5.9	0.59	3506	613	143	56	C	G	1.2250	406.7	2.26
180	185	36.1	72	5.52	0.185	0.181	5.9	0.60	3534	613	143	57	C	G	1.2460	408.7	2.20

Bh age	Total age	Util. std. = 8/6 N	D	V/ha	Mai	Util. std. = 13/7 N	D	V/ha	Mai	Util. std = 15/10 N	D	V/ha	Mai
5	10	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	126	9.2	2.0	0.13	2	12.5	0.1	0.01	0	0.0	0.0	0.00
15	20	451	10.2	13.0	0.64	75	13.6	4.1	0.20	22	15.1	1.3	0.06
20	25	602	11.7	30.2	1.19	242	14.5	18.6	0.73	127	15.8	10.6	0.42
25	30	655	13.2	51.4	1.69	389	15.5	40.5	1.33	264	16.7	29.3	0.97
30	35	668	14.8	75.2	2.13	483	16.6	65.7	1.86	377	17.6	53.7	1.52
35	40	662	16.2	100.2	2.48	535	17.7	91.9	2.28	452	18.6	80.3	1.99
40	45	646	17.7	125.4	2.76	559	18.8	117.9	2.60	496	19.6	107.2	2.36
45	50	628	19.0	150.1	2.98	567	19.9	143.2	2.84	520	20.5	133.4	2.65
50	55	607	20.2	173.6	3.14	564	21.0	167.1	3.02	529	21.5	158.2	2.86
55	60	586	21.4	195.7	3.24	555	22.0	189.4	3.14	528	22.5	181.2	3.00
60	65	566	22.4	216.2	3.31	543	23.0	210.0	3.21	522	23.4	202.5	3.10
65	70	545	23.5	234.9	3.34	528	23.9	228.7	3.25	512	24.3	221.8	3.15
70	75	527	24.4	252.4	3.35	514	24.8	246.2	3.27	502	25.1	239.8	3.18
75	80	508	25.4	267.6	3.33	498	25.7	261.3	3.25	489	25.9	255.4	3.18
80	85	492	26.2	281.7	3.30	484	26.5	275.4	3.23	476	26.7	269.9	3.16
85	90	477	27.0	294.9	3.26	471	27.2	288.6	3.19	464	27.4	283.4	3.14
90	95	462	27.8	306.2	3.21	457	28.0	299.8	3.14	452	28.1	294.9	3.09
95	100	449	28.5	317.0	3.16	445	28.7	310.5	3.09	441	28.8	305.9	3.05
100	105	436	29.2	326.0	3.09	433	29.3	319.5	3.03	429	29.5	315.0	2.99
105	110	425	29.8	334.9	3.03	422	30.0	328.3	2.97	419	30.1	324.1	2.94
110	115	415	30.4	343.1	2.97	413	30.5	336.5	2.92	410	30.7	332.4	2.88
115	120	405	31.0	350.0	2.91	403	31.1	343.3	2.85	401	31.2	339.4	2.82
120	125	396	31.6	356.4	2.84	395	31.6	349.7	2.79	393	31.7	346.0	2.76
125	130	388	32.1	362.5	2.78	387	32.2	355.8	2.73	385	32.3	352.2	2.70
130	135	380	32.6	367.6	2.72	379	32.7	360.8	2.67	378	32.7	357.3	2.64
135	140	373	33.1	372.6	2.65	372	33.2	365.7	2.61	371	33.2	362.4	2.58
140	145	366	33.6	376.6	2.59	365	33.6	369.7	2.54	364	33.7	366.4	2.52
145	150	360	34.0	380.8	2.53	360	34.0	373.9	2.49	359	34.1	370.8	2.47
150	155	355	34.4	385.3	2.48	355	34.4	378.4	2.44	354	34.5	375.3	2.42
155	160	349	34.8	388.0	2.42	349	34.8	381.0	2.38	348	34.9	378.0	2.36
160	165	345	35.2	392.2	2.37	345	35.2	385.2	2.33	344	35.3	382.3	2.31
165	170	340	35.6	394.7	2.32	340	35.6	387.6	2.28	339	35.7	384.7	2.26
170	175	336	36.0	397.7	2.27	336	36.0	390.6	2.23	335	36.0	387.8	2.21
175	180	332	36.3	400.3	2.22	332	36.3	393.1	2.18	331	36.4	390.3	2.16
180	185	328	36.6	402.2	2.17	328	36.6	395.1	2.13	328	36.6	392.4	2.12

SI = 20 m Initial Density = 1000 stems/ha

Bh age	Total age	N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA
5	10	993	3.1	2.9	2.8	3.4	3.6	0.82	2.3	0.5	0.82	0.54
10	15	977	5.9	5.5	4.8	5.8	6.1	1.09	3.5	1.5	0.69	0.97
15	20	954	8.3	7.8	6.7	8.0	8.5	1.35	4.3	2.8	0.60	1.51
20	25	925	10.5	9.9	8.6	10.1	10.8	1.59	4.8	4.2	0.53	2.10
25	30	892	12.5	11.8	10.3	12.0	12.8	1.81	5.2	5.5	0.48	2.73
30	35	856	14.2	13.6	11.9	13.7	14.6	2.01	5.5	6.7	0.44	3.38
35	40	819	15.9	15.2	13.3	15.3	16.2	2.20	5.8	7.9	0.42	4.02
40	45	781	17.4	16.7	14.7	16.6	17.6	2.37	6.0	8.9	0.40	4.67
45	50	745	18.8	18.1	15.9	17.9	18.9	2.53	6.2	9.9	0.38	5.30
50	55	710	20.1	19.3	17.0	19.0	20.0	2.68	6.4	10.7	0.37	5.93
55	60	677	21.3	20.5	18.0	20.0	21.0	2.81	6.5	11.4	0.36	6.54
60	65	646	22.4	21.7	18.9	20.9	21.9	2.94	6.7	12.1	0.35	7.14
65	70	617	23.5	22.7	19.8	21.7	22.7	3.06	6.8	12.7	0.35	7.72
70	75	590	24.5	23.7	20.5	22.4	23.4	3.17	7.0	13.2	0.34	8.28
75	80	566	25.4	24.6	21.2	23.1	24.1	3.28	7.1	13.7	0.34	8.83
80	85	543	26.3	25.5	21.9	23.7	24.7	3.38	7.2	14.1	0.34	9.36
85	90	523	27.1	26.3	22.5	24.2	25.2	3.47	7.3	14.5	0.33	9.87
90	95	504	27.9	27.1	23.0	24.7	25.7	3.56	7.4	14.8	0.33	10.37
95	100	487	28.6	27.9	23.5	25.2	26.2	3.64	7.5	15.1	0.33	10.85
100	105	471	29.3	28.6	24.0	25.7	26.6	3.72	7.6	15.4	0.33	11.31
105	110	457	30.0	29.2	24.4	26.1	27.0	3.80	7.7	15.6	0.33	11.76
110	115	443	30.6	29.9	24.8	26.4	27.4	3.87	7.8	15.8	0.33	12.19
115	120	431	31.2	30.5	25.2	26.8	27.7	3.93	7.9	16.0	0.33	12.61
120	125	420	31.8	31.1	25.6	27.1	28.0	4.00	8.0	16.1	0.33	13.01
125	130	410	32.4	31.6	25.9	27.4	28.3	4.06	8.0	16.3	0.33	13.40
130	135	401	32.9	32.1	26.2	27.7	28.6	4.11	8.1	16.4	0.33	13.77
135	140	392	33.4	32.6	26.5	28.0	28.8	4.17	8.2	16.5	0.33	14.14
140	145	384	33.9	33.1	26.8	28.2	29.1	4.22	8.2	16.6	0.33	14.49
145	150	377	34.3	33.5	27.1	28.4	29.3	4.27	8.3	16.6	0.33	14.83
150	155	370	34.7	34.0	27.3	28.7	29.5	4.32	8.3	16.7	0.33	15.15
155	160	364	35.2	34.4	27.5	28.9	29.7	4.36	8.4	16.8	0.33	15.47
160	165	358	35.6	34.8	27.7	29.1	29.9	4.41	8.4	16.8	0.33	15.78
165	170	353	35.9	35.2	28.0	29.2	30.1	4.45	8.4	16.8	0.33	16.08
170	175	348	36.3	35.6	28.1	29.4	30.2	4.49	8.5	16.9	0.33	16.37
175	180	343	36.7	35.9	28.3	29.6	30.4	4.53	8.5	16.9	0.33	16.65
180	185	339	37.0	36.3	28.5	29.7	30.5	4.57	8.5	16.9	0.33	16.92

Bh age	Total age	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai
5	10	0.7	111	3.17	0.930	0.889	0.4	0.01	205	710	17	5	A	G	0.0011	1.1	0.11
10	15	2.7	99	3.20	0.556	0.527	1.1	0.03	407	710	35	9	A	G	0.0073	7.1	0.46
15	20	5.2	97	3.24	0.403	0.381	1.8	0.05	653	710	54	14	A	G	0.0204	19.5	0.96
20	25	8.0	96	3.29	0.325	0.306	2.5	0.09	916	710	71	19	A	G	0.0411	38.0	1.50
25	30	10.9	96	3.35	0.278	0.262	3.1	0.12	1178	710	86	24	A	G	0.0684	61.0	2.01
30	35	13.6	95	3.42	0.249	0.234	3.6	0.15	1427	710	99	29	A	G	0.1012	86.6	2.45
35	40	16.2	94	3.49	0.229	0.216	4.1	0.19	1657	710	110	33	B	G	0.1386	113.5	2.81
40	45	18.5	93	3.58	0.215	0.203	4.4	0.22	1864	710	119	36	B	G	0.1794	140.1	3.09
45	50	20.6	93	3.66	0.205	0.194	4.8	0.25	2048	710	126	40	B	G	0.2230	166.1	3.30
50	55	22.5	92	3.75	0.198	0.188	5.0	0.27	2210	710	131	42	B	G	0.2685	190.6	3.44
55	60	24.1	91	3.84	0.193	0.183	5.2	0.30	2352	710	136	44	B	G	0.3152	213.4	3.54
60	65	25.5	90	3.93	0.189	0.180	5.4	0.32	2477	710	139	46	B	G	0.3628	234.4	3.59
65	70	26.7	89	4.03	0.186	0.177	5.5	0.34	2585	710	141	48	B	G	0.4105	253.3	3.60
70	75	27.7	88	4.12	0.184	0.176	5.6	0.36	2680	710	143	49	B	G	0.4583	270.4	3.59
75	80	28.7	87	4.20	0.182	0.174	5.7	0.38	2763	710	145	50	B	G	0.5057	286.2	3.56
80	85	29.4	86	4.29	0.181	0.174	5.7	0.39	2837	710	145	51	C	G	0.5521	299.8	3.51
85	90	30.2	85	4.37	0.180	0.173	5.8	0.41	2902	710	146	52	C	G	0.5979	312.7	3.46
90	95	30.8	85	4.45	0.180	0.173	5.8	0.42	2961	710	147	52	C	G	0.6425	323.8	3.40
95	100	31.4	84	4.53	0.180	0.173	5.9	0.44	3014	710	147	53	C	G	0.6860	334.1	3.33
100	105	31.8	83	4.61	0.180	0.173	5.9	0.45	3062	710	147	53	C	G	0.7280	342.9	3.25
105	110	32.3	82	4.68	0.180	0.173	5.9	0.46	3106	710	147	54	C	G	0.7689	351.4	3.18
110	115	32.7	81	4.75	0.180	0.174	5.9	0.47	3147	710	147	54	C	G	0.8084	358.1	3.10
115	120	33.0	81	4.82	0.180	0.174	5.9	0.48	3185	710	147	54	C	G	0.8464	364.8	3.03
120	125	33.4	80	4.88	0.180	0.174	5.9	0.49	3221	710	146	55	C	G	0.8829	370.8	2.96
125	130	33.7	79	4.94	0.180	0.174	5.9	0.50	3255	710	146	55	C	G	0.9180	376.4	2.89
130	135	34.1	78	4.99	0.180	0.175	5.9	0.52	3287	710	146	55	C	G	0.9519	381.7	2.82
135	140	34.3	78	5.05	0.181	0.175	5.9	0.53	3318	710	146	55	C	G	0.9842	385.8	2.75
140	145	34.6	77	5.10	0.181	0.176	5.9	0.53	3348	710	146	56	C	G	1.0151	389.8	2.68
145	150	34.9	76	5.15	0.181	0.176	6.0	0.54	3377	710	146	56	C	G	1.0448	393.9	2.62
150	155	35.1	76	5.20	0.181	0.176	6.0	0.55	3405	710	146	56	C	G	1.0732	397.1	2.56
155	160	35.3	75	5.24	0.182	0.176	6.0	0.56	3432	710	146	56	C	G	1.1003	400.5	2.50
160	165	35.6	74	5.29	0.182	0.177	6.0	0.57	3459	710	146	56	C	G	1.1263	403.2	2.44
165	170	35.8	74	5.32	0.182	0.177	6.0	0.58	3485	710	146	57	C	G	1.1513	406.4	2.39
170	175	36.1	73	5.36	0.182	0.177	6.0	0.59	3511	710	146	57	C	G	1.1750	408.9	2.33
175	180	36.2	73	5.40	0.182	0.178	6.0	0.59	3537	710	146	57	C	G	1.1974	410.7	2.28
180	185	36.5	72	5.43	0.183	0.178	6.0	0.60	3562	710	146	57	C	G	1.2192	413.3	2.23

Bh age	Total age	Util. std. = 8/6 N	D	V/ha	Mai	Util. std. = 13/7 N	D	V/ha	Mai	Util. std = 15/10 N	D	V/ha	Mai
5	10	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	115	9.1	1.7	0.11	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	508	9.9	13.4	0.66	62	13.4	3.3	0.16	15	14.9	0.9	0.04
20	25	709	11.3	32.2	1.27	244	14.2	17.9	0.71	114	15.6	9.1	0.36
25	30	781	12.7	55.3	1.82	423	15.1	41.4	1.36	269	16.4	28.2	0.93
30	35	795	14.2	81.0	2.29	543	16.1	68.9	1.95	406	17.2	54.3	1.54
35	40	784	15.6	107.9	2.67	611	17.2	97.5	2.42	501	18.1	83.1	2.06
40	45	760	17.0	134.5	2.97	641	18.3	125.4	2.76	558	19.0	112.1	2.47
45	50	732	18.3	160.4	3.19	650	19.3	152.3	3.02	587	20.0	140.2	2.78
50	55	702	19.5	184.8	3.34	644	20.3	177.3	3.20	597	20.9	166.4	3.01
55	60	672	20.6	207.6	3.44	630	21.3	200.4	3.32	595	21.8	190.6	3.16
60	65	643	21.7	228.4	3.49	612	22.3	221.4	3.39	586	22.7	212.6	3.25
65	70	615	22.8	247.3	3.52	592	23.3	240.5	3.42	572	23.6	232.4	3.30
70	75	589	23.7	264.3	3.51	572	24.1	257.6	3.42	556	24.5	250.2	3.32
75	80	565	24.7	280.1	3.49	552	25.0	273.3	3.40	540	25.3	266.5	3.32
80	85	542	25.6	293.7	3.44	533	25.8	287.0	3.36	523	26.1	280.7	3.29
85	90	523	26.3	306.5	3.39	515	26.6	299.8	3.32	507	26.8	293.9	3.25
90	95	504	27.1	317.6	3.33	498	27.3	310.9	3.26	491	27.5	305.4	3.20
95	100	487	27.9	327.8	3.27	482	28.1	321.1	3.20	477	28.2	315.9	3.15
100	105	471	28.6	336.7	3.20	467	28.7	329.9	3.13	463	28.9	325.0	3.08
105	110	457	29.2	345.1	3.13	454	29.4	338.3	3.07	450	29.5	333.7	3.02
110	115	443	29.9	351.8	3.05	440	30.0	344.9	2.99	437	30.1	340.5	2.95
115	120	431	30.5	358.4	2.98	429	30.6	351.6	2.92	426	30.7	347.4	2.89
120	125	420	31.1	364.5	2.91	418	31.1	357.6	2.85	416	31.2	353.5	2.82
125	130	410	31.6	370.0	2.84	409	31.6	363.1	2.79	407	31.7	359.3	2.76
130	135	401	32.1	375.3	2.77	400	32.2	368.3	2.72	398	32.3	364.6	2.69
135	140	392	32.6	379.4	2.70	391	32.7	372.4	2.65	390	32.7	368.8	2.63
140	145	384	33.1	383.4	2.64	383	33.1	376.4	2.59	382	33.2	372.9	2.57
145	150	377	33.5	387.5	2.58	376	33.6	380.4	2.53	375	33.7	377.0	2.51
150	155	370	34.0	390.7	2.51	370	34.0	383.6	2.47	369	34.0	380.3	2.45
155	160	364	34.4	394.1	2.46	364	34.4	387.0	2.41	363	34.5	383.8	2.39
160	165	358	34.8	396.8	2.40	358	34.8	389.6	2.36	357	34.9	386.5	2.34
165	170	353	35.2	399.9	2.35	353	35.2	392.7	2.31	352	35.2	389.7	2.29
170	175	348	35.6	402.3	2.29	348	35.6	395.1	2.25	347	35.6	392.2	2.24
175	180	343	35.9	404.2	2.24	343	35.9	397.0	2.20	342	36.0	394.1	2.19
180	185	339	36.3	406.7	2.19	339	36.3	399.4	2.15	338	36.3	396.6	2.14

Table A110. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	N (0/0)	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N (8/6)	D (8/6)	V/ha (8/6)	Mai (8/6)	N (13/7)	D (13/7)	V/ha (13/7)	Mai (13/7)	N (15/10)	D (15/10)	V/ha (15/10)	Mai (15/10)
		SI = 20 m Initial Density = 1600 stems/ha																																						
5	10	1582	2.7	2.5	2.7	3.4	3.6	0.79	2.2	0.5	0.79	0.50	0.9	121	2.51	0.740	0.705	0.6	0.01	301	956	23	8	A	G	0.0008	1.3	0.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	1543	5.2	4.9	4.6	5.7	6.1	1.02	3.2	1.5	0.66	0.85	3.3	105	2.55	0.444	0.419	1.5	0.03	560	956	48	13	A	G	0.0055	8.5	0.55	80	8.8	1.1	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	1485	7.4	7.0	6.5	8.0	8.5	1.25	3.8	2.9	0.56	1.30	6.5	103	2.59	0.325	0.305	2.4	0.07	866	956	73	19	A	G	0.0158	23.4	1.15	614	9.4	13.7	0.67	33	13.1	1.6	0.08	5	14.6	0.3	0.01
20	25	1415	9.4	8.9	8.3	10.1	10.8	1.47	4.3	4.2	0.50	1.80	9.9	102	2.66	0.264	0.247	3.2	0.11	1184	956	94	25	A	G	0.0320	45.3	1.79	972	10.5	36.0	1.42	218	13.7	14.6	0.58	76	15.2	5.6	0.22
25	30	1337	11.3	10.7	10.0	12.0	12.8	1.68	4.7	5.5	0.45	2.34	13.3	101	2.73	0.229	0.214	4.0	0.15	1491	956	113	31	B	G	0.0539	72.0	2.37	1107	11.8	63.4	2.09	468	14.5	40.8	1.34	249	15.8	23.5	0.77
30	35	1255	12.9	12.3	11.6	13.7	14.6	1.87	4.9	6.8	0.42	2.90	16.5	100	2.82	0.207	0.193	4.6	0.19	1772	956	128	36	B	G	0.0808	101.4	2.87	1130	13.1	93.2	2.64	661	15.3	73.2	2.07	441	16.5	52.1	1.47
35	40	1175	14.5	13.9	13.0	15.2	16.2	2.05	5.2	7.9	0.39	3.48	19.4	99	2.92	0.192	0.180	5.1	0.23	2022	956	139	41	B	G	0.1120	131.6	3.26	1104	14.4	123.8	3.07	777	16.2	107.0	2.65	590	17.3	85.5	2.12
40	45	1097	15.9	15.3	14.3	16.5	17.6	2.21	5.4	8.9	0.37	4.06	21.9	97	3.02	0.183	0.171	5.5	0.26	2238	956	148	44	B	G	0.1469	161.2	3.55	1055	15.7	153.6	3.39	831	17.2	139.5	3.08	685	18.1	119.4	2.63
45	50	1024	17.3	16.6	15.5	17.8	18.9	2.37	5.6	9.8	0.36	4.64	24.1	96	3.13	0.176	0.166	5.8	0.29	2422	956	155	48	B	G	0.1849	189.3	3.76	999	16.9	181.9	3.61	845	18.2	169.9	3.37	734	18.9	151.7	3.01
50	55	956	18.6	17.9	16.6	18.8	20.0	2.51	5.8	10.7	0.35	5.22	25.9	95	3.23	0.172	0.162	6.0	0.32	2577	956	159	50	B	G	0.2252	215.3	3.89	940	18.1	208.0	3.76	834	19.1	197.4	3.57	751	19.8	181.3	3.28
55	60	894	19.8	19.1	17.6	19.8	21.0	2.65	6.0	11.4	0.34	5.80	27.5	94	3.34	0.169	0.159	6.2	0.34	2707	956	162	52	C	G	0.2673	239.0	3.96	884	19.2	231.7	3.84	809	20.1	222.2	3.68	748	20.7	208.0	3.45
60	65	837	20.9	20.2	18.5	20.7	21.9	2.78	6.2	12.1	0.33	6.37	28.8	93	3.46	0.167	0.158	6.3	0.36	2816	956	164	53	C	G	0.3108	260.1	3.98	830	20.3	252.9	3.87	777	21.0	244.0	3.73	732	21.5	231.5	3.54
65	70	787	22.0	21.3	19.3	21.5	22.7	2.90	6.3	12.7	0.33	6.92	29.9	92	3.56	0.166	0.157	6.4	0.38	2908	956	165	54	C	G	0.3550	279.4	3.97	783	21.4	272.3	3.87	744	22.0	263.9	3.75	710	22.4	252.7	3.59
70	75	741	23.0	22.3	20.1	22.2	23.4	3.01	6.5	13.2	0.33	7.47	30.8	91	3.67	0.165	0.157	6.4	0.40	2984	956	165	55	C	G	0.3997	296.2	3.93	738	22.4	289.1	3.84	710	22.8	281.1	3.73	684	23.2	271.1	3.60
75	80	700	24.0	23.2	20.8	22.9	24.1	3.12	6.6	13.6	0.32	8.01	31.6	90	3.78	0.165	0.157	6.5	0.41	3049	956	165	56	C	G	0.4444	311.1	3.87	698	23.3	304.1	3.78	677	23.7	296.3	3.69	657	24.0	287.3	3.58
80	85	663	24.9	24.2	21.4	23.5	24.7	3.23	6.8	14.1	0.32	8.53	32.2	89	3.88	0.165	0.157	6.5	0.43	3104	956	165	57	C	G	0.4890	324.2	3.80	662	24.2	317.3	3.72	646	24.5	309.6	3.63	630	24.8	301.4	3.53
85	90	630	25.7	25.0	22.0	24.1	25.2	3.32	6.9	14.4	0.32	9.04	32.8	88	3.98	0.166	0.158	6.5	0.44	3152	956	164	57	C	G	0.5330	335.8	3.72	629	25.0	328.9	3.64	617	25.3	321.3	3.56	604	25.6	313.8	3.47
90	95	601	26.6	25.8	22.6	24.6	25.7	3.41	7.0	14.8	0.32	9.54	33.3	87	4.08	0.166	0.158	6.5	0.45	3193	956	163	57	C	G	0.5765	346.5	3.63	600	25.9	339.6	3.56	591	26.1	332.1	3.48	581	26.3	325.1	3.41
95	100	574	27.3	26.6	23.1	25.1	26.2	3.50	7.2	15.1	0.32	10.02	33.7	86	4.17	0.167	0.159	6.4	0.46	3230	956	162	58	C	G	0.6190	355.3	3.54	574	26.6	348.4	3.47	566	26.8	341.0	3.40	558	27.0	334.5	3.33
100	105	550	28.1	27.3	23.5	25.5	26.6	3.58	7.3	15.3	0.32	10.48	34.0	85	4.26	0.167	0.160	6.4	0.47	3262	956	161	58	C	G	0.6605	363.3	3.45	550	27.3	356.4	3.38	544	27.5	349.0	3.31	537	27.7	343.0	3.26
105	110	529	28.8	28.0	24.0	25.9	27.0	3.66	7.4	15.6	0.32	10.94	34.4	84	4.35	0.168	0.161	6.4	0.48	3292	956	161	58	C	G	0.7009	370.8	3.36	529	28.0	364.0	3.30	524	28.2	356.6	3.23	519	28.3	351.0	3.18
110	115	509	29.4	28.7	24.4	26.3	27.4	3.73	7.5	15.8	0.32	11.37	34.6	83	4.43	0.169	0.162	6.4	0.49	3319	956	159	58	C	G	0.7401	376.7	3.27	509	28.7	369.9	3.21	505	28.8	362.6	3.14	501	28.9	357.3	3.10
115	120	492	30.1	29.3	24.8	26.6	27.7	3.80	7.6	15.9	0.32	11.80	34.9	83	4.51	0.169	0.163	6.4	0.50	3345	956	159	58	C	G	0.7783	382.9	3.18	492	29.3	376.1	3.12	489	29.4	368.7	3.06	485	29.6	363.7	3.02
120	125	476	30.7	29.9	25.1	26.9	28.0	3.87	7.6	16.1	0.32	12.21	35.1	82	4.58	0.170	0.164	6.3	0.51	3369	956	158	58	C	G	0.8149	387.9	3.09	476	29.9	381.1	3.04	473	30.0	373.8	2.98	470	30.1	369.0	2.94
125	130	461	31.2	30.5	25.5	27.2	28.3	3.93	7.7	16.2	0.32	12.60	35.3	81	4.66	0.171	0.165	6.3	0.52	3392	956	157	58	C	G	0.8503	392.0	3.01	461	30.5	385.2	2.96	459	30.6	377.9	2.90	456	30.7	373.4	2.86
130	135	448	31.8	31.0	25.8	27.5	28.6	3.99	7.8	16.4	0.32	12.99	35.5	80	4.72	0.172	0.165	6.3	0.53	3414	956	156	58	C	G	0.8844	396.2	2.93	448	31.0	389.5	2.88	446	31.1	382.1	2.82	444	31.2	377.9	2.79
135	140	436	32.3	31.5	26.1	27.8	28.8	4.05	7.9	16.5	0.32	13.36	35.7	79	4.79	0.172	0.166	6.3	0.54	3435	956	155	58	C	G	0.9174	400.0	2.85	436	31.5	393.2	2.80	435	31.6	385.9	2.75	433	31.7	381.8	2.72
140	145	425	32.8	32.0	26.3	28.0	29.1	4.11	7.9	16.5	0.32	13.72	35.9	79	4.85	0.173	0.167	6.3	0.54	3456	956	155	58	C	G	0.9489	403.3	2.77	425	32.0	396.6	2.73	424	32.1	389.2	2.68	422	32.2	385.3	2.65
145	150	415	33.3	32.5	26.6	28.3	29.3	4.16	8.0	16.6	0.32	14.07	36.1	78	4.91	0.174	0.168	6.3	0.55	3476	956	154	58	C	G	0.9793	406.4	2.70	415	32.5	399.7	2.66	414	32.6	392.3	2.61	412	32.7	388.5	2.58
150	155	405	33.7	33.0	26.9	28.5	29.5	4.21	8.1	16.7	0.32	14.41	36.2	77	4.97	0.174	0.168	6.2	0.56	3496	956	153	58	C	G	1.0084	408.4	2.63	405	33.0	401.6	2.59	404	33.0	394.3	2.54	403	33.1	390.6	2.51
155	160	397	34.2	33.4	27.1	28.7	29.7	4.26	8.1	16.7	0.32	14.73	36.4	76	5.02	0.175	0.169	6.2	0.57	3516	956	153	58	C	G	1.0363	411.4	2.57	397	33.4	404.7	2.52	396	33.5	397.3	2.48	395	33.5	393.7	2.46
160	165	389	34.6	33.8	27.3	28.9	29.9	4.30	8.2	16.8	0.33	15.05	36.6	76	5.07	0.175	0.170	6.2	0.57	3536	956	152	59	C	G	1.0630	413.5	2.50	389	33.8	406.8	2.46	388	33.9	399.4	2.42	387	34.0	395.9	2.39
165	170	382	35.0	34.3	27.5	29.1	30.1	4.35	8.2	16.8	0.33	15.36	36.8	75	5.12	0.176	0.170	6.2	0.58	3556	956	152	59	C	G	1.0885	415.8	2.44	382	34.3	409.1	2.40	382	34.3	401.7	2.36	381	34.3	398.4	2.34
170	175	375	35.4	34.6	27.7	29.3	30.2	4.39	8.3	16.8	0.33	15.66	36.9	74	5.16	0.177	0.171	6.2	0.59	3576	956	152	59	C	G	1.1131	417.4	2.38	375	34.6	410.7	2.34	375	34.6	403.3	2.30	374	34.7	400.0	2.28
175	180	369	35.8	35.0	27.9	29.4	30.4	4.43	8.3	16.8	0.33	15.95	37.1	74	5.21	0.177	0.171	6.2	0.59	3596	956	151	59	C	G	1.1366	419.4	2.33	369	35.0	412.7	2.29	369	35.0	405.2	2.25	368	35.1	402.1	2.23
180	185	363	36.1	35.4	28.1	29.6	30.5	4.47	8.3	16.8	0.33	16.23	37.3	73	5.25	0.177	0.172	6.2	0.60	3616	956	151	59	C	G	1.1590	420.7	2.27	363	35.4	414.0	2.23	363	35.4	406.5	2.19	362	35.4	403.4	2.18
		SI = 20 m Initial Density = 2000 stems/ha																																						
5	10	1974	2.6	2.4	2.7	3.4	3.6	0.78	2.1	0.6	0.78	0.48	1.0	126	2.25	0.663	0.631	0.6	0.01	362	1097	27	9	A	G	0.0007	1.4	0.14	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	1914	5.0	4.6	4.6	5.7	6.1	0.99	3.0	1.6	0.65	0.80	3.7	109	2.29	0.400	0.377	1.7	0.04	652	1097	56	15	A	G	0.0048	9.2	0.60	60	8.7	0.8	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	1829	7.1	6.6	6.4	8.0	8.5	1.21	3.6	2.9	0.55	1.21	7.2	106	2.34	0.294	0.275	2.7	0.08	990	1097	84	22	A	G	0.0139	25.4	1.25	649	9.2	13.4	0.66	21	13.0	1.0	0.05	2	14.4	0.1	0.00
20	25	1727	9.0	8.5	8.2	10.0	10.8	1.42	4.1	4.2	0.48	1.68	10.9	104	2.41	0.240	0.224	3.6	0.12	1337	1097	108	29	A	G	0.0283	48.9	1.93	1109	10.2	37.4	1.48	192	13.5	12.4	0.49	56	15.0	4.0	0.16
25	30	1615	10.7	10.2	9.9	11.9	12.8	1.62	4.4	5.5	0.44	2.18	14.6	103	2.49	0.209	0.195	4.5	0.17	1665	1097	128	35	B	G	0.0480	77.5	2.55	1291	11.4	66.9	2.20	470	14.2	38.9	1.28	225	15.6	20.3	0.67
30	35	1501	12.4	11.8	11.4	13.6	14.6	1.80	4.7	6.8	0.40	2.70	18.0	102	2.58	0.190	0.177	5.1	0.21	1960	1097	144	41	B	G	0.0724	108.7	3.07	1325	12.6	99.0	2.80	707	15.0	73.7	2.08	440	16.2	49.3	1.39
35	40	1389	13.9	13.3	12.8	15.1	16.2	1.98	4.9	7.9	0.38	3.24	21.0	101	2.68	0.177	0.166	5.6	0.25	2217	1097	156	45	B	G	0.1011	140.4	3.48	1290	13.9	131.3	3.25	855	15.8	110.2	2.73	620	16.9	84.5	2.09
40	45	1283	15.3	14.7	14.1	16.5	17.6	2.14	5.2	8.9	0.36	3.80	23.6	99	2.79	0.169	0.158	6.0	0.28	2434	1097	164	49	B	G	0.1334	171.2	3.77	1225	15.1	162.4	3.58	926	16.7	145.0	3.20	739	17.7	120.8	2.66
45	50	1186	16.7	16.0	15.3	17.7	18.9	2.29	5.4	9.8	0.35	4.35	25.8	98	2.90	0.164	0.154	6.3	0.31	2615	1097	170	52	C	G	0.1688	200.2	3.98	1151	16.3	191.8	3.81	946	17.7	177.2	3.52	804	18.5	155.5	3.09
50	55	1097	17.9	17.3	16.4	18.8	20.0	2.44	5.6	10.6	0.34	4.91	27.7	97	3.02	0.161	0.151	6.5	0.34	2765	1097	174	54	C	G	0.2067	226.8	4.10	1075	17.5	218.6	3.95	934	18.6	206.1	3.72	828	19.3	186.9	3.38
55	60	1017	19.1	18.4	17.4	19.8	21.0	2.57	5.7	11.3	0.33	5.47	29.2	96	3.14	0.159	0.149	6.7	0.36	2887	1097	176	56	C	G	0.2467	250.9	4.16	1003	18.6	242.9	4.02	905	19.5	231.8	3.84	826	20.2	215.0	3.56
60	65	945	20.3	19.6	18.3	20.6	21.9	2.70	5.9	12.0	0.33	6.03	30.5	95	3.25	0.158	0.149	6.8	0.38	2987	1097	177	57	C	G	0.2880	272.2	4.17	936	19.7	264.4	4.05	866	20.5	254.3	3.89	808	21.0	239.6	3.67
65	70	881	21.3	20.6	19.1	21.4	22.7	2.83	6.1	12.6	0.32	6.57	31.5	93	3.37	0.157	0.148	6.8	0.40	3068	1097	177	58	C	G	0.3305	291.2	4.14	875	20.7	283.5	4.03	825	21.4	274.2	3.90	781	21.8	261.1	3.71
70	75	824	22.3	21.6	19.9	22.2	23.4	2.94	6.3	13.1	0.32	7.11	32.3	92	3.48	0.157	0.149	6.8	0.42	3135	1097	177	59	C	G	0.3737	307.9	4.09	820	21.7	300.3	3.99	784	22.2	291.5	3.87	751	22.7	279.9	3.71
75	80	774	23.3	22.6	20.5	22.8	24.1	3.05	6.4	13.6	0.32	7.64	33.0	91	3.59	0.157	0.149	6.8	0.43	3190	1097	176	59	C	G	0.4171	322.8	4.02	771	22.7	315.3	3.92	744	23.1	306.8	3.82	719	23.5	296.5	3.69
80	85	729	24.2	23.5	21.2	23.4	24.7	3.15	6.6	14.0	0.32	8.15	33.6	90	3.70	0.158	0.150	6.8	0.44	3236	1097	175	59	C	G	0.4604	335.6	3.93	727	23.6	328.2	3.85	707	23.9	320.0	3.75	687	24.2	310.6	3.64
85	90	689	25.1	24.4	21.8	24.0	25.2	3.25	6.7	14.4	0.31	8.66	34.1	89	3.81	0.159	0.151	6.8	0.46	3274	1097	173	60	C	G	0.5033	346.8	3.84	688	24.4	339.5	3.76	672	24.7	331.4	3.67	657	25.0	323.0	3.57
90	95	653	25.9	25.2	22.3	24.5	25.7	3.34	6.8	14.7	0.31	9.15	34.5	88	3.91	0.160	0.152	6.8	0.47	3307	1097	172	60	C	G	0.5459	356.5	3.74	652	25.2	349.2	3.66	640	25.5	341.3	3.58	628	25.7	333.6	3.50
95	100	622	26.7	26.0	22.8	25.0	26.2	3.43	7.0	15.0	0.31	9.63	34.8	87	4.01	0.161	0.153	6.7	0.48	3335	1097	170	60	C	G	0.5878	365.6	3.64	622	26.0	358.4	3.57	612	26.2	350.5	3.49	602	26.5	343.4	3.42
100	105	593	27.5	26.7	23.3	25.4	26.6	3.51	7.1	15.3	0.31	10.09	35.1	86	4.11	0.162	0.154	6.7	0.49	3360	1097	169	60	C	G	0.6287	372.8	3.54	593	26.7	365.6	3.47	585	26.9	357.9	3.40	577	27.1	351.3	3.33
105	110	568	28.2	27.4	23.7	25.8	27.0	3.59	7.2	15.5	0.31	10.54	35.4	85	4.20	0.163	0.155	6.7	0.49	3383	1097	167	60	C	G	0.6687	379.8	3.44	568	27.4	372.7	3.38	562	27.6	365.0	3.31	555	27.8	358.8	3.25
110	115	545	28.8	28.1	24.2	26.2	27.4	3.67	7.3	15.7	0.31	10.98	35.6	84	4.28	0.164	0.156	6.6	0.50	3404	1097	166	60	C	G	0.7075	385.6	3.34	545	28.1	378.5	3.28	540	28.3	370.9	3.22	535	28.4	365.2	3.17
115	120	524	29.5	28.7	24.5	26.5	27.7	3.74	7.4	15.9	0.31	11.41	35.8	83	4.37	0.165	0.158	6.6	0.51	3423	1097	164	60	C	G	0.7452	390.5	3.24	524	28.7	383.5	3.19	520	28.9	375.9	3.12	515	29.0	370.5	3.08
120	125	505	30.1	29.3	24.9	26.8	28.0	3.81	7.5	16.1	0.32	11.82	35.9	83	4.45	0.166	0.159	6.5	0.52	3441	1097	163	60	C	G	0.7818	394.8	3.15	505	29.3	387.8	3.09	502	29.5	380.3	3.03	498	29.6	375.2	2.99
125	130	489	30.7	29.9	25.2	27.1	28.3	3.87	7.6	16.2	0.32	12.22	36.1	82	4.52	0.167	0.160	6.5	0.53	3458	1097	162	60	C	G	0.8172	399.6	3.07	489	29.9	392.7	3.01	486	30.0	385.1	2.95	483	30.1	380.3	2.92
130	135	473	31.2	30.5	25.5	27.4	28.6	3.93	7.7	16.3	0.32	12.60	36.2	81	4.60	0.168	0.161	6.5	0.53	3475	1097	161	60	C	G	0.8514	402.7	2.98	473	30.5	395.8	2.92	471	30.6	388.2	2.87	468	30.7	383.6	2.83
135	140	459	31.8	31.0	25.8	27.7	28.8	3.99	7.7	16.4	0.32	12.98	36.4	80	4.67	0.169	0.162	6.5	0.54	3492	1097	160	60	C	G	0.8843	405.9	2.89	459	31.0	399.0	2.84	457	31.1	391.4	2.79	455	31.2	387.1	2.76
140	145	447	32.3	31.5	26.1	27.9	29.1	4.05	7.8	16.5	0.32	13.34	36.6	79	4.73	0.169	0.163	6.4	0.55	3508	1097	159	60	C	G	0.9159	409.4	2.82	447	31.5	402.6	2.77	446	31.6	395.1	2.72	443	31.7	390.8	2.69
145	150	435	32.8	32.0	26.4	28.2	29.3	4.10	7.9	16.6	0.32	13.69	36.7	79	4.79	0.170	0.164	6.4	0.55	3524	1097	158	60	C	G	0.9464	411.7	2.74	435	32.0	404.8	2.69	434	32.1	397.3	2.64	432	32.1	393.3	2.62
150	155	424	33.2	32.5	26.6	28.4	29.5	4.15	8.0	16.6	0.32	14.03	36.8	78	4.86	0.171	0.165	6.4	0.56	3541	1097	157	59	C	G	0.9757	413.7	2.66	424	32.5	406.8	2.62	423	32.5	399.3	2.57	421	32.6	395.4	2.55
155	160	414	33.7	32.9	26.8	28.6	29.7	4.20	8.0	16.7	0.32	14.36	36.9	77	4.91	0.172	0.165	6.4	0.57	3557	1097	156	59	C	G	1.0039	415.6	2.59	414	32.9	408.7	2.55	413	33.0	401.2	2.50	412	33.0	397.5	2.48
160	165	405	34.1	33.4	27.1	28.8	29.9	4.25	8.1	16.7	0.32	14.68	37.0	76	4.97	0.172	0.166	6.3	0.57	3574	1097	156	59	C	G	1.0309	417.5	2.52	405	33.4	410.6	2.48	404	33.4	403.1	2.44	403	33.5	399.5	2.42
165	170	397	34.5	33.8	27.3	29.0	30.1	4.30	8.1	16.8	0.32	15.00	37.2	76	5.02	0.173	0.167	6.3	0.58	3590	1097	155	60	C	G	1.0567	419.5	2.46	397	33.8	412.7	2.42	396	33.8	405.1	2.38	395	33.9	401.6	2.36
170	175	390	34.9	34.2	27.5	29.2	30.2	4.34	8.2	16.8	0.32	15.30	37.4	75	5.06	0.174	0.168	6.3	0.59	3607	1097	155	60	C	G	1.0815	421.8	2.41	390	34.2	415.0	2.37	390	34.2	407.4	2.32	389	34.2	404.1	2.30
175	180	382	35.3	34.6	27.7	29.3	30.4	4.38	8.2	16.8	0.33	15.59	37.4	74	5.12	0.174	0.168	6.3	0.59	3624	1097	154	60	C	G	1.1052	422.2	2.34	382	34.6	415.3	2.30	382	34.6	407.8	2.26	381	34.6	404.6	2.24
180	185	376	35.7	34.9	27.8	29.5	30.5	4.42	8.3	16.8	0.33	15.88	37.6	74	5.16	0.175	0.169	6.3	0.60	3642	1097	154	60	C	G	1.1279	424.1	2.29	376	34.9	417.3	2.25	376	34.9	409.8	2.21	375	35.0	406.5	2.19

Column groups: N through Mai (0/0) = Utilization standard (Util. std.) = 0/0 (total volume); (8/6) = Util. std. = 8/6; (13/7) = Util. std. = 13/7; (15/10) = Util std = 15/10.

Table A111. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Utilization standard (Util. std.) = 0/0 (total volume); Util. std. = 8/6; Util. std. = 13/7; Util. std = 15/10

SI = 20 m Initial Density = 3000 stems/ha

Bh age	Total age	N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N (8/6)	D (8/6)	V/ha (8/6)	Mai (8/6)	N (13/7)	D (13/7)	V/ha (13/7)	Mai (13/7)	N (15/10)	D (15/10)	V/ha (15/10)	Mai (15/10)
5	10	2948	2.3	2.1	2.6	3.4	3.6	0.76	1.9	0.6	0.76	0.45	1.2	136	1.84	0.545	0.516	0.8	0.01	507	1405	36	13	A	G	0.0006	1.7	0.16	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	2831	4.5	4.2	4.5	5.7	6.1	0.95	2.8	1.6	0.62	0.72	4.4	115	1.88	0.330	0.310	2.1	0.05	862	1405	73	21	A	G	0.0038	10.7	0.70	28	8.5	0.3	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	2666	6.4	6.0	6.3	7.9	8.5	1.14	3.3	2.9	0.52	1.07	8.6	111	1.94	0.244	0.228	3.4	0.10	1265	1405	108	29	A	G	0.0110	29.2	1.43	663	8.9	11.9	0.58	7	12.8	0.3	0.01	0	0.0	0.0	0.00
20	25	2472	8.2	7.7	8.0	10.0	10.8	1.34	3.7	4.2	0.46	1.47	13.0	109	2.01	0.201	0.187	4.5	0.15	1664	1405	137	36	B	G	0.0227	56.0	2.21	1360	9.7	38.8	1.53	131	13.2	8.0	0.32	26	14.8	1.8	0.07
25	30	2268	9.8	9.3	9.6	11.9	12.8	1.52	4.0	5.5	0.41	1.91	17.2	107	2.10	0.177	0.164	5.5	0.20	2030	1405	160	43	B	G	0.0388	87.9	2.90	1675	10.7	72.5	2.39	434	13.8	33.1	1.09	163	15.2	13.7	0.45
30	35	2066	11.4	10.8	11.1	13.5	14.6	1.69	4.2	6.7	0.38	2.38	21.0	106	2.20	0.163	0.151	6.2	0.25	2347	1405	177	49	B	G	0.0592	122.3	3.46	1744	11.8	108.5	3.07	753	14.4	71.0	2.01	401	15.8	41.1	1.16
35	40	1875	12.8	12.2	12.5	15.0	16.2	1.86	4.5	7.8	0.36	2.86	24.2	104	2.31	0.154	0.143	6.8	0.29	2611	1405	189	54	C	G	0.0835	156.6	3.88	1694	13.0	144.2	3.57	979	15.2	112.6	2.79	640	16.4	78.8	1.95
40	45	1700	14.2	13.6	13.8	16.4	17.6	2.01	4.7	8.8	0.34	3.36	26.9	103	2.43	0.148	0.138	7.1	0.33	2826	1405	196	57	C	G	0.1114	189.4	4.18	1596	14.1	178.0	3.92	1099	16.0	152.3	3.36	816	17.0	119.3	2.63
45	50	1544	15.5	14.9	14.9	17.6	18.9	2.16	4.9	9.7	0.33	3.88	29.2	101	2.54	0.145	0.135	7.4	0.36	2998	1405	201	60	C	G	0.1424	219.9	4.37	1482	15.3	209.2	4.15	1142	16.8	188.5	3.74	922	17.7	158.5	3.15
50	55	1405	16.7	16.1	16.0	18.6	20.0	2.31	5.1	10.5	0.32	4.40	31.0	100	2.67	0.143	0.133	7.6	0.38	3132	1405	203	62	C	G	0.1761	247.4	4.47	1367	16.4	237.3	4.29	1134	17.7	220.2	3.98	968	18.5	193.8	3.50
55	60	1283	17.9	17.3	16.9	19.6	21.0	2.44	5.3	11.2	0.32	4.92	32.4	99	2.79	0.142	0.133	7.7	0.41	3237	1405	204	63	C	G	0.2119	271.9	4.51	1259	17.5	262.3	4.35	1098	18.6	247.7	4.10	975	19.3	224.8	3.72
60	65	1176	19.1	18.4	17.8	20.5	21.9	2.57	5.5	11.8	0.31	5.44	33.5	97	2.92	0.142	0.133	7.7	0.43	3317	1405	203	64	C	G	0.2495	293.4	4.49	1160	18.6	284.2	4.35	1048	19.5	271.5	4.15	957	20.1	251.7	3.85
65	70	1083	20.1	19.4	18.6	21.3	22.7	2.69	5.7	12.4	0.31	5.96	34.4	96	3.04	0.143	0.134	7.7	0.44	3379	1405	201	65	C	G	0.2885	312.4	4.44	1073	19.6	303.5	4.31	993	20.3	292.0	4.15	925	20.9	274.8	3.91
70	75	1001	21.1	20.5	19.4	22.0	23.4	2.81	5.9	13.0	0.31	6.48	35.1	95	3.16	0.144	0.135	7.6	0.45	3426	1405	199	65	C	G	0.3284	328.7	4.36	994	20.6	320.0	4.25	936	21.2	309.4	4.11	885	21.7	294.3	3.91
75	80	930	22.1	21.4	20.1	22.7	24.1	2.91	6.0	13.4	0.31	6.98	35.7	94	3.28	0.145	0.136	7.6	0.47	3462	1405	197	65	C	G	0.3688	343.0	4.27	925	21.5	334.5	4.16	883	22.0	324.6	4.04	844	22.4	311.3	3.87
80	85	868	23.0	22.3	20.7	23.3	24.7	3.02	6.2	13.9	0.31	7.48	36.1	92	3.39	0.146	0.137	7.5	0.48	3489	1405	194	65	C	G	0.4096	355.5	4.17	865	22.4	347.2	4.07	833	22.8	337.8	3.96	803	23.2	325.9	3.82
85	90	813	23.9	23.2	21.3	23.8	25.2	3.12	6.3	14.3	0.30	7.97	36.5	91	3.51	0.147	0.139	7.5	0.49	3510	1405	191	65	C	G	0.4503	366.1	4.05	811	23.2	358.0	3.96	787	23.6	348.9	3.86	764	24.0	338.3	3.74
90	95	764	24.7	24.0	21.8	24.3	25.7	3.21	6.5	14.6	0.30	8.45	36.7	90	3.62	0.149	0.141	7.4	0.49	3526	1405	189	65	C	G	0.4908	375.0	3.93	762	24.1	367.0	3.85	744	24.4	358.2	3.76	726	24.7	348.6	3.66
95	100	721	25.5	24.8	22.3	24.8	26.2	3.30	6.6	14.9	0.30	8.92	36.9	89	3.72	0.150	0.142	7.3	0.50	3539	1405	186	64	C	G	0.5308	382.7	3.81	720	24.8	374.9	3.74	706	25.1	366.3	3.65	691	25.4	357.5	3.56
100	105	683	26.3	25.6	22.8	25.2	26.6	3.38	6.8	15.2	0.31	9.37	37.1	88	3.83	0.152	0.144	7.2	0.51	3550	1405	183	64	C	G	0.5703	389.5	3.70	682	25.6	381.8	3.62	671	25.8	373.3	3.54	659	26.1	365.3	3.47
105	110	650	27.0	26.3	23.2	25.6	27.0	3.47	6.9	15.4	0.31	9.82	37.2	87	3.92	0.153	0.145	7.2	0.52	3559	1405	181	64	C	G	0.6091	395.9	3.59	650	26.3	388.2	3.52	640	26.5	379.9	3.44	631	26.7	372.5	3.38
110	115	619	27.7	27.0	23.7	26.0	27.4	3.54	7.0	15.6	0.31	10.25	37.3	86	4.02	0.155	0.147	7.1	0.52	3567	1405	178	63	C	G	0.6468	400.4	3.47	619	27.0	392.8	3.41	611	27.2	384.6	3.33	604	27.4	377.8	3.28
115	120	592	28.4	27.6	24.0	26.3	27.7	3.62	7.1	15.8	0.31	10.67	37.4	85	4.11	0.156	0.148	7.0	0.53	3574	1405	176	63	C	G	0.6838	404.8	3.36	592	27.6	397.3	3.30	586	27.8	389.2	3.23	579	28.0	382.8	3.18
120	125	568	29.0	28.2	24.4	26.7	28.0	3.69	7.2	16.0	0.31	11.08	37.5	84	4.20	0.157	0.150	7.0	0.53	3581	1405	174	63	C	G	0.7197	408.8	3.26	568	28.2	401.4	3.20	563	28.4	393.3	3.14	558	28.5	387.4	3.09
125	130	546	29.6	28.8	24.7	27.0	28.3	3.75	7.3	16.1	0.31	11.48	37.5	83	4.28	0.159	0.151	6.9	0.54	3588	1405	172	63	C	G	0.7546	412.0	3.16	546	28.8	404.6	3.10	542	29.0	396.7	3.04	537	29.1	391.0	3.00
130	135	527	30.2	29.4	25.0	27.3	28.6	3.82	7.4	16.2	0.31	11.87	37.7	83	4.36	0.160	0.152	6.9	0.55	3595	1405	171	63	C	G	0.7884	415.5	3.07	527	29.4	408.2	3.02	524	29.5	400.3	2.96	520	29.7	394.9	2.92
135	140	509	30.7	30.0	25.3	27.5	28.8	3.88	7.5	16.3	0.31	12.24	37.7	82	4.43	0.161	0.154	6.8	0.55	3602	1405	169	62	C	G	0.8210	417.9	2.98	509	30.0	410.7	2.93	506	30.1	402.8	2.87	503	30.2	397.7	2.83
140	145	493	31.2	30.5	25.6	27.8	29.1	3.93	7.6	16.4	0.31	12.61	37.8	81	4.50	0.162	0.155	6.8	0.56	3610	1405	168	62	C	G	0.8527	420.4	2.89	493	30.5	413.1	2.84	491	30.6	405.3	2.79	488	30.7	400.5	2.76
145	150	478	31.7	31.0	25.9	28.0	29.3	3.99	7.6	16.5	0.31	12.96	37.8	80	4.57	0.163	0.156	6.7	0.56	3619	1405	166	62	C	G	0.8831	422.1	2.81	478	31.0	415.0	2.76	476	31.1	407.1	2.71	474	31.2	402.6	2.68
150	155	464	32.2	31.5	26.1	28.2	29.5	4.04	7.7	16.6	0.32	13.31	37.9	79	4.64	0.165	0.157	6.7	0.57	3627	1405	165	62	C	G	0.9125	423.4	2.73	464	31.5	416.2	2.68	462	31.6	408.4	2.63	460	31.6	404.1	2.60
155	160	452	32.7	31.9	26.4	28.4	29.7	4.09	7.8	16.6	0.32	13.64	37.9	79	4.70	0.165	0.158	6.6	0.57	3637	1405	164	62	C	G	0.9407	425.2	2.65	452	31.9	418.1	2.61	451	32.0	410.4	2.56	449	32.1	406.2	2.53
160	165	440	33.1	32.4	26.6	28.6	29.9	4.14	7.9	16.7	0.32	13.96	38.0	78	4.77	0.167	0.160	6.6	0.58	3647	1405	162	61	C	G	0.9680	425.9	2.58	440	32.4	418.8	2.53	439	32.4	411.1	2.49	437	32.5	407.0	2.46
165	170	430	33.6	32.8	26.8	28.8	30.1	4.19	7.9	16.7	0.32	14.28	38.1	77	4.82	0.167	0.160	6.6	0.58	3657	1405	161	61	C	G	0.9942	427.5	2.51	430	32.8	420.4	2.47	429	32.9	412.7	2.42	428	32.9	408.8	2.40
170	175	420	34.0	33.2	27.0	29.0	30.2	4.24	8.0	16.7	0.32	14.59	38.1	76	4.88	0.168	0.161	6.5	0.59	3668	1405	160	61	C	G	1.0193	428.1	2.44	420	33.2	421.0	2.40	419	33.3	413.3	2.36	418	33.3	409.6	2.34
175	180	412	34.4	33.6	27.2	29.2	30.4	4.28	8.0	16.7	0.32	14.89	38.3	76	4.93	0.169	0.162	6.5	0.59	3680	1405	160	61	C	G	1.0434	429.9	2.38	412	33.6	422.9	2.34	411	33.7	415.1	2.30	410	33.7	411.5	2.28
180	185	403	34.8	34.0	27.4	29.3	30.5	4.32	8.1	16.7	0.32	15.18	38.3	75	4.98	0.170	0.163	6.5	0.60	3692	1405	159	61	C	G	1.0665	429.8	2.32	403	34.0	422.8	2.28	402	34.1	415.0	2.24	401	34.1	411.5	2.22

SI = 20 m Initial Density = 4000 stems/ha

Bh age	Total age	N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N (8/6)	D (8/6)	V/ha (8/6)	Mai (8/6)	N (13/7)	D (13/7)	V/ha (13/7)	Mai (13/7)	N (15/10)	D (15/10)	V/ha (15/10)	Mai (15/10)
5	10	3917	2.1	2.0	2.6	3.4	3.6	0.74	1.8	0.6	0.74	0.44	1.4	144	1.60	0.474	0.448	0.9	0.01	645	1675	45	17	A	G	0.0005	1.8	0.17	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	3733	4.2	3.9	4.4	5.7	6.1	0.92	2.6	1.7	0.60	0.68	5.1	120	1.64	0.288	0.270	2.5	0.06	1053	1675	88	25	A	G	0.0032	11.8	0.77	13	8.4	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	3477	6.0	5.6	6.2	7.9	8.5	1.10	3.1	2.9	0.50	0.99	9.7	115	1.70	0.215	0.199	4.0	0.11	1505	1675	129	34	B	G	0.0092	32.1	1.58	625	8.6	10.3	0.51	3	12.5	0.1	0.00	0	0.0	0.0	0.00
20	25	3182	7.6	7.2	7.8	9.9	10.8	1.28	3.4	4.2	0.44	1.35	14.6	112	1.77	0.178	0.165	5.3	0.17	1943	1675	162	43	B	G	0.0192	61.1	2.41	1519	9.3	38.6	1.52	86	13.0	5.0	0.20	12	14.6	0.8	0.03
25	30	2878	9.2	8.7	9.4	11.8	12.8	1.45	3.7	5.5	0.40	1.74	19.2	110	1.86	0.158	0.146	6.3	0.23	2332	1675	187	50	C	G	0.0332	95.5	3.15	1975	10.3	75.4	2.48	375	13.5	27.2	0.90	113	15.0	9.1	0.30
30	35	2585	10.7	10.2	10.9	13.5	14.6	1.62	3.9	6.6	0.37	2.17	23.2	108	1.97	0.146	0.135	7.1	0.28	2661	1675	204	56	C	G	0.0510	131.9	3.73	2093	11.3	114.4	3.24	746	14.1	65.9	1.86	346	15.5	33.5	0.95
35	40	2315	12.1	11.6	12.2	15.0	16.2	1.78	4.2	7.7	0.35	2.62	26.6	107	2.08	0.139	0.128	7.7	0.32	2926	1675	216	61	C	G	0.0726	168.1	4.17	2040	12.4	152.6	3.78	1039	14.8	110.8	2.75	619	16.0	71.3	1.77
40	45	2073	13.4	12.9	13.5	16.3	17.6	1.93	4.4	8.6	0.33	3.08	29.4	105	2.20	0.135	0.125	8.0	0.36	3135	1675	223	64	C	G	0.0975	202.2	4.46	1915	13.5	188.4	4.15	1212	15.5	154.6	3.41	843	16.6	114.4	2.52
45	50	1860	14.7	14.1	14.6	17.5	18.9	2.08	4.6	9.5	0.32	3.57	31.7	103	2.32	0.133	0.123	8.3	0.39	3295	1675	226	66	C	G	0.1255	233.5	4.64	1766	14.6	220.9	4.39	1283	16.3	193.9	3.85	988	17.3	156.8	3.11
50	55	1675	15.9	15.3	15.7	18.5	20.0	2.21	4.8	10.3	0.31	4.06	33.4	102	2.44	0.132	0.122	8.4	0.42	3416	1675	227	68	C	G	0.1562	261.7	4.73	1618	15.7	250.0	4.52	1287	17.1	228.2	4.12	1062	18.0	195.4	3.53
55	60	1514	17.1	16.5	16.6	19.5	21.0	2.35	5.0	11.0	0.31	4.55	34.8	100	2.57	0.132	0.122	8.4	0.44	3505	1675	225	69	C	G	0.1892	286.4	4.75	1478	16.7	275.4	4.56	1250	17.9	257.4	4.26	1082	18.7	229.0	3.79
60	65	1376	18.2	17.6	17.5	20.4	21.9	2.47	5.2	11.7	0.31	5.05	35.8	99	2.70	0.132	0.123	8.4	0.46	3570	1675	223	69	C	G	0.2240	308.2	4.72	1353	17.8	297.7	4.56	1194	18.8	282.4	4.32	1069	19.5	257.9	3.95
65	70	1256	19.3	18.6	18.3	21.2	22.7	2.59	5.4	12.3	0.30	5.54	36.6	98	2.82	0.133	0.124	8.3	0.47	3616	1675	220	70	C	G	0.2603	326.9	4.65	1241	18.8	316.9	4.50	1128	19.6	303.3	4.31	1036	20.2	282.3	4.01
70	75	1153	20.3	19.6	19.0	21.9	23.4	2.71	5.6	12.8	0.30	6.04	37.2	97	2.95	0.135	0.126	8.3	0.48	3648	1675	217	70	C	G	0.2976	343.1	4.55	1143	19.7	333.5	4.43	1062	20.5	321.4	4.27	993	21.0	303.1	4.02
75	80	1064	21.2	20.6	19.7	22.5	24.1	2.82	5.8	13.3	0.30	6.53	37.7	95	3.07	0.136	0.127	8.2	0.49	3669	1675	213	69	C	G	0.3357	357.2	4.45	1057	20.7	347.9	4.33	998	21.3	336.7	4.19	946	21.7	320.8	3.99
80	85	986	22.2	21.5	20.3	23.1	24.7	2.92	5.9	13.7	0.30	7.01	38.0	94	3.18	0.138	0.129	8.1	0.50	3683	1675	209	69	C	G	0.3743	369.1	4.32	981	21.5	360.1	4.22	937	22.1	349.5	4.09	897	22.5	335.5	3.93
85	90	918	23.0	22.3	20.9	23.7	25.2	3.02	6.1	14.1	0.30	7.48	38.2	93	3.30	0.139	0.131	8.0	0.51	3691	1675	205	69	C	G	0.4131	379.2	4.20	915	22.4	370.4	4.10	882	22.8	360.5	3.99	851	23.2	348.0	3.85
90	95	859	23.9	23.2	21.5	24.2	25.7	3.11	6.2	14.5	0.30	7.95	38.4	92	3.41	0.141	0.133	7.9	0.52	3695	1675	202	68	C	G	0.4518	388.1	4.07	857	23.2	379.5	3.98	831	23.6	369.9	3.88	807	23.9	358.7	3.76
95	100	806	24.7	24.0	22.0	24.7	26.2	3.20	6.4	14.8	0.30	8.41	38.5	91	3.52	0.143	0.134	7.8	0.52	3696	1675	198	68	C	G	0.4903	395.2	3.94	804	24.0	386.8	3.85	785	24.3	377.5	3.76	766	24.6	367.4	3.66
100	105	760	25.4	24.7	22.4	25.1	26.6	3.29	6.5	15.0	0.30	8.85	38.6	90	3.63	0.145	0.136	7.7	0.53	3696	1675	195	67	C	G	0.5283	401.5	3.81	759	24.7	393.3	3.73	744	25.0	384.3	3.65	728	25.3	375.0	3.56
105	110	719	26.2	25.4	22.9	25.5	27.0	3.37	6.7	15.3	0.30	9.29	38.6	89	3.73	0.146	0.138	7.6	0.53	3695	1675	192	67	C	G	0.5658	406.8	3.69	718	25.5	398.7	3.61	706	25.7	389.9	3.53	694	25.9	381.4	3.46
110	115	683	26.8	26.1	23.3	25.9	27.4	3.45	6.8	15.5	0.30	9.72	38.7	88	3.83	0.148	0.140	7.5	0.54	3693	1675	189	66	C	G	0.6025	411.5	3.57	682	26.2	403.6	3.50	673	26.4	394.9	3.42	662	26.6	387.1	3.36
115	120	651	27.5	26.8	23.6	26.2	27.7	3.52	6.9	15.7	0.30	10.13	38.7	87	3.92	0.150	0.141	7.4	0.54	3691	1675	186	66	C	G	0.6386	415.7	3.45	651	26.8	407.8	3.39	643	27.0	399.3	3.32	634	27.2	392.0	3.26
120	125	622	28.1	27.4	24.0	26.5	28.0	3.59	7.0	15.9	0.30	10.54	38.7	86	4.01	0.151	0.143	7.3	0.55	3690	1675	183	66	C	G	0.6736	419.0	3.34	622	27.4	411.3	3.28	615	27.6	402.8	3.21	608	27.8	396.1	3.16
125	130	596	28.8	28.0	24.3	26.8	28.3	3.66	7.1	16.0	0.30	10.93	38.7	85	4.10	0.153	0.145	7.2	0.55	3689	1675	181	65	C	G	0.7079	421.9	3.24	596	28.0	414.2	3.18	590	28.2	405.9	3.11	585	28.3	399.6	3.07
130	135	572	29.3	28.6	24.6	27.1	28.6	3.72	7.2	16.1	0.31	11.32	38.7	84	4.18	0.154	0.146	7.1	0.55	3689	1675	178	65	C	G	0.7411	423.9	3.13	572	28.6	416.3	3.08	567	28.8	408.1	3.02	562	28.9	402.1	2.97
135	140	551	29.9	29.2	24.9	27.4	28.8	3.79	7.3	16.3	0.31	11.69	38.7	83	4.26	0.156	0.148	7.1	0.56	3689	1675	176	64	C	G	0.7733	426.1	3.04	551	29.2	418.6	2.98	547	29.3	410.4	2.92	543	29.4	404.8	2.88
140	145	532	30.4	29.7	25.2	27.6	29.1	3.85	7.4	16.4	0.31	12.05	38.7	82	4.34	0.157	0.149	7.0	0.56	3691	1675	175	64	C	G	0.8047	428.1	2.95	532	29.7	420.6	2.89	529	29.8	412.5	2.84	525	29.9	407.2	2.80
145	150	514	30.9	30.2	25.5	27.9	29.3	3.90	7.5	16.4	0.31	12.41	38.7	81	4.41	0.158	0.151	6.9	0.57	3693	1675	173	64	C	G	0.8348	429.1	2.85	514	30.2	421.7	2.80	511	30.3	413.6	2.75	508	30.4	408.6	2.72
150	155	498	31.4	30.7	25.7	28.1	29.5	3.96	7.5	16.5	0.31	12.75	38.7	80	4.48	0.160	0.152	6.9	0.57	3696	1675	171	63	C	G	0.8641	430.3	2.77	498	30.7	423.0	2.72	496	30.8	415.0	2.67	493	30.9	410.1	2.64
155	160	484	31.9	31.2	26.0	28.3	29.7	4.01	7.6	16.6	0.31	13.08	38.7	80	4.55	0.161	0.153	6.9	0.58	3700	1675	170	63	C	G	0.8924	431.9	2.69	484	31.2	424.6	2.65	482	31.2	416.6	2.60	480	31.3	412.0	2.57
160	165	470	32.4	31.6	26.2	28.5	29.9	4.06	7.7	16.6	0.31	13.41	38.7	79	4.61	0.162	0.154	6.8	0.58	3704	1675	168	63	C	G	0.9194	432.1	2.61	470	31.6	424.9	2.57	468	31.7	416.9	2.52	466	31.8	412.5	2.49
165	170	458	32.8	32.1	26.4	28.7	30.1	4.11	7.7	16.6	0.32	13.73	38.7	78	4.67	0.163	0.155	6.8	0.58	3710	1675	167	63	C	G	0.9456	433.1	2.54	458	32.1	425.9	2.50	457	32.1	418.0	2.45	455	32.2	413.7	2.43
170	175	447	33.2	32.5	26.6	28.8	30.2	4.15	7.8	16.7	0.32	14.04	38.8	77	4.73	0.164	0.156	6.7	0.59	3717	1675	166	63	C	G	0.9709	434.0	2.47	447	32.5	426.8	2.43	446	32.5	418.9	2.39	444	32.6	414.8	2.37
175	180	436	33.6	32.9	26.8	29.0	30.4	4.20	7.9	16.7	0.32	14.34	38.8	77	4.79	0.165	0.158	6.7	0.59	3724	1675	164	63	C	G	0.9952	433.9	2.41	436	32.9	426.7	2.37	435	32.9	418.8	2.32	434	33.0	414.9	2.30
180	185	427	34.0	33.3	27.0	29.2	30.5	4.24	7.9	16.7	0.32	14.63	38.9	76	4.84	0.166	0.159	6.7	0.60	3732	1675	163	62	C	G	1.0185	434.9	2.35	427	33.3	427.8	2.31	426	33.3	419.9	2.27	425	33.4	416.1	2.24

Table A112. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 20 m Initial Density = 5000 stems/ha																																								
5	10	4884	2.0	1.8	2.6	3.4	3.6	0.74	1.8	0.6	0.73	0.43	1.5	151	1.43	0.425	0.401	1.1	0.02	778	1920	52	21	A	G	0.0004	2.0	0.19	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	4624	3.9	3.7	4.3	5.7	6.1	0.89	2.4	1.7	0.58	0.64	5.6	124	1.47	0.260	0.242	2.8	0.06	1231	1920	102	30	A	G	0.0027	12.7	0.83	6	8.3	0.1	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	4268	5.6	5.3	6.1	7.9	8.5	1.07	2.9	2.9	0.49	0.93	10.7	118	1.53	0.194	0.180	4.5	0.12	1723	1920	147	39	B	G	0.0081	34.5	1.69	564	8.5	8.7	0.43	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	25	3865	7.3	6.9	7.7	9.9	10.8	1.24	3.2	4.2	0.43	1.26	16.0	115	1.61	0.162	0.150	5.9	0.19	2190	1920	183	49	B	G	0.0169	65.2	2.57	1613	9.1	37.6	1.48	55	12.9	3.2	0.13	6	14.5	0.4	0.02
25	30	3458	8.8	8.3	9.3	11.8	12.8	1.40	3.5	5.4	0.39	1.62	20.9	113	1.70	0.145	0.133	7.0	0.25	2596	1920	210	56	C	G	0.0293	101.4	3.34	2213	10.0	76.7	2.53	315	13.3	22.1	0.73	78	14.9	6.1	0.20
30	35	3072	10.2	9.7	10.7	13.4	14.6	1.56	3.7	6.5	0.36	2.02	25.1	110	1.80	0.134	0.124	7.9	0.30	2929	1920	228	62	C	G	0.0454	139.4	3.94	2390	10.9	118.2	3.34	712	13.9	60.1	1.70	290	15.3	27.0	0.76
35	40	2723	11.6	11.0	12.0	14.9	16.2	1.72	4.0	7.6	0.34	2.44	28.6	109	1.92	0.129	0.118	8.4	0.35	3192	1920	239	66	C	G	0.0649	176.7	4.38	2343	11.9	158.4	3.93	1061	14.5	107.1	2.65	579	15.8	63.5	1.57
40	45	2415	12.9	12.3	13.3	16.2	17.6	1.87	4.2	8.5	0.32	2.88	31.4	107	2.03	0.125	0.116	8.8	0.39	3393	1920	245	70	C	G	0.0877	211.8	4.67	2197	13.0	195.6	4.31	1284	15.2	153.9	3.39	841	16.3	108.0	2.38
45	50	2149	14.1	13.5	14.4	17.4	18.9	2.01	4.4	9.4	0.31	3.34	33.7	105	2.16	0.124	0.114	9.0	0.42	3543	1920	247	72	D	G	0.1134	243.8	4.84	2020	14.0	229.3	4.55	1388	15.9	196.2	3.90	1023	16.9	152.8	3.03
50	55	1920	15.3	14.7	15.4	18.5	20.0	2.14	4.6	10.2	0.31	3.80	35.4	104	2.28	0.124	0.114	9.0	0.44	3651	1920	246	73	D	G	0.1419	272.4	4.92	1842	15.1	259.1	4.68	1407	16.7	232.7	4.20	1125	17.6	194.1	3.51
55	60	1724	16.5	15.8	16.3	19.4	21.0	2.28	4.8	10.9	0.30	4.28	36.7	102	2.41	0.124	0.115	9.0	0.46	3727	1920	244	74	D	G	0.1725	297.4	4.93	1675	16.1	285.1	4.72	1376	17.5	263.7	4.37	1162	18.3	230.1	3.81
60	65	1556	17.6	16.9	17.2	20.3	21.9	2.40	5.0	11.6	0.30	4.75	37.7	101	2.54	0.125	0.116	9.0	0.48	3779	1920	240	74	D	G	0.2051	319.1	4.88	1525	17.2	307.6	4.71	1316	18.3	289.6	4.43	1157	19.0	260.8	3.99
65	70	1413	18.6	18.0	18.0	21.1	22.7	2.52	5.2	12.1	0.30	5.23	38.4	99	2.66	0.126	0.117	8.9	0.49	3812	1920	236	74	D	G	0.2392	338.0	4.80	1392	18.1	327.1	4.65	1245	19.1	311.5	4.43	1127	19.7	286.9	4.08
70	75	1290	19.6	18.9	18.7	21.8	23.4	2.63	5.4	12.7	0.29	5.71	38.9	98	2.78	0.128	0.119	8.8	0.50	3831	1920	231	74	D	G	0.2745	354.1	4.70	1276	19.1	343.7	4.56	1171	19.9	330.0	4.38	1082	20.5	308.6	4.10
75	80	1184	20.6	19.9	19.4	22.4	24.1	2.74	5.6	13.2	0.29	6.18	39.3	97	2.91	0.130	0.121	8.7	0.51	3841	1920	227	73	D	G	0.3106	367.8	4.58	1175	20.0	357.8	4.45	1098	20.7	345.4	4.30	1031	21.2	326.9	4.07
80	85	1092	21.5	20.8	20.0	23.0	24.7	2.84	5.7	13.6	0.29	6.65	39.5	95	3.03	0.131	0.123	8.5	0.52	3843	1920	222	73	D	G	0.3474	379.4	4.45	1085	20.9	369.7	4.33	1029	21.5	358.3	4.20	978	21.9	342.0	4.01
85	90	1013	22.3	21.7	20.6	23.6	25.2	2.94	5.9	14.0	0.29	7.11	39.7	94	3.14	0.133	0.124	8.4	0.53	3840	1920	217	72	D	G	0.3845	389.5	4.31	1008	21.7	380.2	4.21	966	22.2	369.4	4.09	926	22.6	354.9	3.93
90	95	943	23.2	22.5	21.1	24.1	25.7	3.04	6.0	14.3	0.29	7.56	39.8	93	3.26	0.135	0.126	8.3	0.53	3834	1920	213	71	D	G	0.4216	397.6	4.17	940	22.5	388.5	4.07	907	23.0	378.2	3.97	877	23.3	365.5	3.83
95	100	883	24.0	23.3	21.6	24.5	26.2	3.13	6.2	14.7	0.29	8.01	39.8	92	3.37	0.137	0.128	8.1	0.54	3826	1920	209	71	D	G	0.4587	405.0	4.04	881	23.3	396.2	3.95	856	23.7	386.3	3.85	831	24.0	374.8	3.73
100	105	829	24.7	24.0	22.1	25.0	26.6	3.21	6.3	14.9	0.29	8.45	39.8	91	3.47	0.139	0.130	8.0	0.54	3817	1920	204	70	D	G	0.4954	410.7	3.90	827	24.1	402.1	3.82	808	24.4	392.5	3.73	788	24.7	382.1	3.63
105	110	782	25.5	24.7	22.5	25.4	27.0	3.29	6.5	15.2	0.30	8.87	39.8	90	3.58	0.141	0.132	7.9	0.54	3807	1920	201	69	C	G	0.5317	415.8	3.77	781	24.8	407.3	3.69	765	25.1	398.0	3.61	750	25.3	388.6	3.52
110	115	740	26.2	25.4	22.9	25.7	27.4	3.37	6.6	15.4	0.30	9.29	39.8	89	3.68	0.143	0.134	7.8	0.55	3798	1920	197	69	C	G	0.5674	419.9	3.64	739	25.5	411.6	3.57	727	25.7	402.6	3.49	714	25.9	393.8	3.41
115	120	703	26.8	26.1	23.3	26.1	27.7	3.44	6.7	15.6	0.30	9.70	39.7	88	3.77	0.145	0.136	7.7	0.55	3789	1920	194	68	C	G	0.6026	423.6	3.52	702	26.1	415.4	3.45	692	26.3	406.5	3.38	682	26.5	398.5	3.31
120	125	670	27.5	26.7	23.6	26.4	28.0	3.52	6.8	15.8	0.30	10.10	39.7	87	3.86	0.146	0.138	7.6	0.56	3781	1920	191	68	C	G	0.6369	426.7	3.40	670	26.7	418.7	3.34	661	27.0	409.9	3.27	653	27.1	402.5	3.21
125	130	640	28.1	27.3	24.0	26.7	28.3	3.58	6.9	15.9	0.30	10.49	39.6	86	3.95	0.148	0.140	7.5	0.56	3774	1920	188	67	C	G	0.6705	429.1	3.29	640	27.3	421.1	3.23	633	27.5	412.5	3.16	626	27.7	405.6	3.11
130	135	613	28.7	27.9	24.3	27.0	28.6	3.65	7.0	16.1	0.30	10.87	39.5	85	4.04	0.150	0.141	7.4	0.56	3767	1920	185	67	C	G	0.7031	431.0	3.18	613	27.9	423.1	3.13	607	28.1	414.6	3.06	601	28.2	408.1	3.02
135	140	589	29.2	28.5	24.6	27.2	28.8	3.71	7.1	16.2	0.30	11.24	39.5	84	4.12	0.151	0.143	7.3	0.57	3762	1920	183	66	C	G	0.7348	432.8	3.08	589	28.5	425.1	3.03	584	28.6	416.6	2.97	579	28.8	410.5	2.92
140	145	567	29.8	29.0	24.9	27.5	29.1	3.77	7.2	16.3	0.30	11.60	39.4	83	4.20	0.153	0.144	7.2	0.57	3758	1920	180	66	C	G	0.7656	434.1	2.99	567	29.0	426.5	2.93	563	29.2	418.1	2.88	558	29.3	412.3	2.84
145	150	547	30.3	29.5	25.1	27.7	29.3	3.83	7.3	16.3	0.31	11.95	39.4	82	4.28	0.154	0.146	7.2	0.57	3755	1920	178	65	C	G	0.7956	435.2	2.89	547	29.5	427.6	2.84	544	29.6	419.3	2.79	540	29.8	413.8	2.75
150	155	529	30.8	30.0	25.4	27.9	29.5	3.88	7.4	16.4	0.31	12.29	39.4	81	4.35	0.156	0.147	7.1	0.58	3753	1920	176	65	C	G	0.8246	436.2	2.81	529	30.0	428.6	2.76	526	30.1	420.4	2.71	523	30.2	415.2	2.67
155	160	512	31.3	30.5	25.6	28.2	29.7	3.94	7.5	16.5	0.31	12.63	39.3	81	4.42	0.157	0.149	7.0	0.58	3753	1920	174	65	C	G	0.8525	436.5	2.72	512	30.5	429.0	2.68	510	30.6	420.8	2.62	507	30.7	415.9	2.59
160	165	497	31.7	31.0	25.8	28.3	29.9	3.99	7.5	16.5	0.31	12.95	39.3	80	4.49	0.158	0.150	7.0	0.58	3753	1920	173	64	C	G	0.8795	437.1	2.64	497	31.0	429.7	2.60	495	31.1	421.6	2.55	492	31.2	416.8	2.52
165	170	483	32.2	31.4	26.0	28.5	30.1	4.04	7.6	16.6	0.31	13.27	39.3	79	4.55	0.159	0.151	6.9	0.58	3755	1920	171	64	C	G	0.9056	437.4	2.57	483	31.4	430.0	2.52	481	31.5	421.9	2.48	479	31.6	417.4	2.45
170	175	471	32.6	31.8	26.2	28.7	30.2	4.08	7.7	16.6	0.31	13.58	39.3	78	4.61	0.160	0.152	6.9	0.59	3758	1920	170	64	C	G	0.9310	438.5	2.50	471	31.8	431.1	2.46	470	31.9	423.1	2.41	467	32.0	418.6	2.39
175	180	459	33.0	32.3	26.4	28.9	30.4	4.13	7.7	16.6	0.32	13.88	39.3	77	4.67	0.162	0.154	6.8	0.59	3761	1920	168	64	C	G	0.9551	438.4	2.43	459	32.3	431.1	2.39	458	32.3	423.1	2.35	456	32.4	418.9	2.32
180	185	448	33.4	32.7	26.6	29.0	30.5	4.17	7.8	16.6	0.32	14.17	39.3	77	4.72	0.163	0.155	6.8	0.60	3766	1920	167	63	C	G	0.9786	438.4	2.37	448	32.7	431.1	2.33	447	32.7	423.1	2.28	445	32.8	419.0	2.26
SI = 20 m Initial Density = 6000 stems/ha																																								
5	10	5847	1.9	1.8	2.5	3.4	3.6	0.73	1.7	0.7	0.71	0.42	1.6	157	1.31	0.389	0.367	1.2	0.02	908	2148	59	24	A	G	0.0004	2.1	0.20	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	5507	3.7	3.5	4.3	5.6	6.1	0.88	2.3	1.7	0.57	0.62	6.0	127	1.35	0.239	0.222	3.1	0.07	1400	2148	115	34	B	G	0.0024	13.4	0.87	3	8.2	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	5044	5.4	5.1	6.0	7.9	8.5	1.04	2.8	2.9	0.48	0.88	11.5	121	1.41	0.179	0.166	5.0	0.13	1925	2148	164	44	B	G	0.0072	36.4	1.79	497	8.4	7.3	0.36	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	25	4529	6.9	6.6	7.6	9.9	10.8	1.20	3.1	4.2	0.42	1.19	17.2	117	1.49	0.150	0.138	6.5	0.20	2414	2148	203	54	C	G	0.0151	68.6	2.71	1662	8.9	36.2	1.43	36	12.8	2.0	0.08	3	14.3	0.2	0.01
25	30	4015	8.4	8.0	9.1	11.7	12.8	1.36	3.3	5.4	0.38	1.53	22.3	114	1.58	0.135	0.123	7.7	0.27	2831	2148	231	61	C	G	0.0265	106.2	3.50	2404	9.7	77.1	2.54	261	13.2	17.8	0.59	53	14.8	4.1	0.14
30	35	3536	9.8	9.3	10.5	13.4	14.6	1.52	3.6	6.5	0.35	1.91	26.7	112	1.68	0.126	0.115	8.5	0.33	3166	2148	249	67	C	G	0.0411	145.4	4.11	2649	10.6	120.6	3.41	665	13.7	54.2	1.53	240	15.1	21.7	0.61
35	40	3109	11.1	10.6	11.9	14.8	16.2	1.67	3.8	7.5	0.33	2.30	30.3	110	1.79	0.121	0.111	9.1	0.37	3425	2148	260	72	D	G	0.0591	183.7	4.55	2613	11.6	162.5	4.03	1059	14.3	102.4	2.54	532	15.6	56.2	1.39
40	45	2737	12.4	11.9	13.1	16.2	17.6	1.81	4.0	8.4	0.32	2.72	33.1	108	1.91	0.118	0.109	9.4	0.41	3618	2148	264	75	D	G	0.0802	219.5	4.84	2453	12.6	201.1	4.43	1329	14.9	151.6	3.34	821	16.1	100.9	2.22
45	50	2419	13.6	13.1	14.2	17.3	18.9	1.95	4.2	9.3	0.31	3.16	35.4	106	2.03	0.117	0.108	9.6	0.44	3757	2148	265	76	D	G	0.1042	252.0	5.00	2252	13.6	235.7	4.68	1467	15.6	196.5	3.90	1038	16.7	147.7	2.93
50	55	2148	14.8	14.2	15.2	18.4	20.0	2.09	4.4	10.1	0.30	3.60	37.0	105	2.16	0.117	0.108	9.6	0.47	3854	2148	263	77	D	G	0.1307	280.8	5.07	2047	14.7	266.1	4.81	1505	16.3	235.0	4.25	1166	17.3	191.1	3.45
55	60	1918	15.9	15.3	16.1	19.3	21.0	2.22	4.6	10.8	0.30	4.06	38.3	103	2.28	0.118	0.109	9.6	0.49	3918	2148	260	78	D	G	0.1595	306.0	5.07	1855	15.7	292.5	4.85	1480	17.1	267.5	4.43	1223	17.9	229.3	3.80
60	65	1723	17.0	16.4	16.9	20.2	21.9	2.34	4.8	11.4	0.29	4.52	39.2	102	2.41	0.119	0.110	9.5	0.50	3958	2148	255	78	D	G	0.1902	327.8	5.02	1683	16.7	315.2	4.82	1422	17.9	294.7	4.51	1228	18.6	261.8	4.01
65	70	1558	18.1	17.4	17.7	21.0	22.7	2.46	5.0	12.0	0.29	4.98	39.9	100	2.53	0.121	0.112	9.4	0.51	3979	2148	250	78	D	G	0.2225	346.7	4.93	1531	17.6	334.9	4.76	1347	18.6	317.4	4.51	1202	19.3	289.2	4.11
70	75	1416	19.0	18.4	18.4	21.7	23.4	2.57	5.2	12.5	0.29	5.44	40.3	99	2.66	0.122	0.113	9.2	0.52	3988	2148	244	77	D	G	0.2561	362.6	4.81	1398	18.6	351.5	4.66	1266	19.4	336.2	4.46	1158	20.0	312.0	4.14
75	80	1295	20.0	19.3	19.1	22.3	24.1	2.68	5.4	13.0	0.29	5.90	40.6	98	2.78	0.124	0.115	9.1	0.53	3987	2148	239	76	D	G	0.2906	376.3	4.68	1283	19.5	365.7	4.55	1187	20.2	352.0	4.38	1105	20.7	331.0	4.12
80	85	1190	20.9	20.2	19.7	22.9	24.7	2.78	5.6	13.5	0.29	6.35	40.8	96	2.90	0.126	0.117	8.9	0.54	3980	2148	233	76	D	G	0.3258	387.7	4.54	1182	20.3	377.4	4.42	1111	21.0	364.9	4.28	1048	21.4	346.6	4.06
85	90	1100	21.8	21.1	20.3	23.5	25.2	2.88	5.7	13.9	0.29	6.80	40.9	95	3.02	0.128	0.119	8.8	0.54	3968	2148	228	75	D	G	0.3614	397.5	4.40	1094	21.2	387.6	4.29	1041	21.7	376.0	4.16	993	22.1	359.9	3.98
90	95	1021	22.6	21.9	20.8	24.0	25.7	2.97	5.9	14.2	0.29	7.24	40.9	94	3.13	0.131	0.122	8.6	0.55	3954	2148	222	74	D	G	0.3971	405.4	4.25	1017	22.0	395.9	4.15	977	22.4	385.0	4.04	939	22.8	370.6	3.89
95	100	953	23.4	22.7	21.3	24.4	26.2	3.06	6.0	14.5	0.29	7.68	40.9	93	3.24	0.133	0.124	8.5	0.55	3938	2148	218	73	D	G	0.4328	412.5	4.11	950	22.7	403.2	4.02	919	23.2	392.8	3.91	889	23.5	380.0	3.79
100	105	893	24.1	23.4	21.8	24.9	26.6	3.15	6.2	14.8	0.29	8.11	40.9	92	3.35	0.135	0.126	8.3	0.55	3922	2148	213	72	D	G	0.4684	418.3	3.97	891	23.5	409.3	3.88	867	23.8	399.3	3.79	843	24.2	387.7	3.68
105	110	840	24.9	24.2	22.2	25.3	27.0	3.23	6.3	15.1	0.29	8.53	40.8	91	3.45	0.137	0.128	8.2	0.56	3905	2148	209	72	D	G	0.5037	423.1	3.83	838	24.2	414.2	3.75	819	24.5	404.5	3.67	800	24.8	394.0	3.57
110	115	793	25.6	24.9	22.6	25.6	27.4	3.30	6.4	15.3	0.29	8.94	40.7	90	3.55	0.139	0.130	8.1	0.56	3889	2148	205	71	D	G	0.5385	427.0	3.70	792	24.9	418.3	3.63	776	25.2	408.8	3.54	761	25.4	399.3	3.46
115	120	751	26.2	25.5	23.0	26.0	27.7	3.38	6.6	15.5	0.29	9.34	40.6	89	3.65	0.140	0.132	7.9	0.56	3874	2148	201	70	D	G	0.5726	430.0	3.57	750	25.5	421.6	3.50	738	25.8	412.3	3.43	725	26.0	403.5	3.35
120	125	714	26.9	26.1	23.3	26.3	28.0	3.45	6.7	15.7	0.30	9.73	40.5	88	3.74	0.142	0.134	7.8	0.56	3860	2148	197	69	C	G	0.6062	432.8	3.45	713	26.2	424.5	3.39	703	26.4	415.4	3.31	693	26.6	407.3	3.25
125	130	680	27.5	26.8	23.7	26.6	28.3	3.52	6.8	15.8	0.30	10.12	40.3	87	3.83	0.144	0.135	7.7	0.57	3847	2148	194	69	C	G	0.6390	434.5	3.33	680	26.8	426.3	3.27	671	27.0	417.4	3.20	662	27.2	409.8	3.14
130	135	650	28.1	27.3	24.0	26.9	28.6	3.58	6.9	16.0	0.30	10.49	40.2	86	3.92	0.146	0.137	7.6	0.57	3836	2148	191	68	C	G	0.6711	436.2	3.22	650	27.3	428.1	3.16	643	27.5	419.4	3.10	635	27.7	412.2	3.05
135	140	624	28.6	27.9	24.3	27.1	28.8	3.65	7.0	16.1	0.30	10.86	40.2	85	4.00	0.148	0.139	7.5	0.57	3826	2148	188	68	C	G	0.7024	438.3	3.12	624	27.9	430.3	3.07	618	28.1	421.6	3.00	612	28.2	415.0	2.96
140	145	599	29.2	28.4	24.6	27.4	29.1	3.71	7.1	16.2	0.30	11.22	40.1	84	4.09	0.149	0.141	7.4	0.57	3817	2148	186	67	C	G	0.7327	438.9	3.02	599	28.4	431.0	2.97	594	28.6	422.4	2.91	589	28.7	416.2	2.86
145	150	577	29.7	29.0	24.8	27.6	29.3	3.77	7.2	16.3	0.30	11.56	40.0	83	4.16	0.151	0.142	7.3	0.58	3810	2148	183	67	C	G	0.7622	439.8	2.93	577	29.0	432.0	2.87	573	29.1	423.5	2.82	568	29.2	417.6	2.78
150	155	557	30.2	29.5	25.1	27.8	29.5	3.82	7.3	16.3	0.31	11.90	39.9	82	4.24	0.152	0.144	7.3	0.58	3804	2148	181	66	C	G	0.7908	440.5	2.84	557	29.5	432.8	2.79	553	29.6	424.4	2.73	549	29.7	418.8	2.70
155	160	539	30.7	30.0	25.3	28.0	29.7	3.87	7.3	16.4	0.31	12.24	39.9	81	4.31	0.154	0.145	7.2	0.58	3799	2148	179	66	C	G	0.8186	441.2	2.75	539	30.0	433.6	2.70	536	30.1	425.2	2.65	532	30.2	419.9	2.62
160	165	522	31.2	30.4	25.5	28.2	29.9	3.93	7.4	16.5	0.31	12.56	39.8	81	4.38	0.155	0.146	7.1	0.58	3796	2148	177	66	C	G	0.8454	441.3	2.67	522	30.4	433.7	2.62	519	30.5	425.4	2.57	516	30.6	420.4	2.54
165	170	506	31.6	30.9	25.7	28.4	30.1	3.98	7.5	16.5	0.31	12.88	39.7	80	4.45	0.156	0.148	7.1	0.59	3794	2148	175	65	C	G	0.8713	440.9	2.59	506	30.9	433.4	2.54	504	30.9	425.2	2.50	501	31.1	420.3	2.47
170	175	492	32.1	31.3	25.9	28.6	30.2	4.02	7.6	16.5	0.31	13.18	39.7	79	4.51	0.158	0.149	7.0	0.59	3794	2148	173	65	C	G	0.8965	441.1	2.52	492	31.3	433.6	2.47	490	31.4	425.4	2.43	488	31.5	420.8	2.40
175	180	479	32.5	31.7	26.1	28.8	30.4	4.07	7.6	16.5	0.31	13.48	39.7	78	4.57	0.159	0.150	7.0	0.59	3794	2148	172	65	C	G	0.9207	441.0	2.45	479	31.7	433.6	2.40	477	31.8	425.4	2.36	475	31.9	421.0	2.33
180	185	467	32.9	32.1	26.3	28.9	30.5	4.11	7.7	16.5	0.31	13.78	39.7	77	4.63	0.160	0.152	6.9	0.59	3795	2148	170	64	C	G	0.9441	440.9	2.38	467	32.1	433.5	2.34	466	32.2	425.4	2.30	464	32.2	421.1	2.27

Table A113. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 20 m	**Initial Density = 7000 stems/ha**																																							
5	10	6807	1.8	1.7	2.5	3.4	3.6	0.72	1.7	0.7	0.70	0.41	1.7	162	1.21	0.361	0.340	1.3	0.02	1035	2363	66	28	A	G	0.0003	2.2	0.21	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	6382	3.6	3.3	4.2	5.6	6.1	0.86	2.3	1.7	0.56	0.60	6.4	130	1.25	0.222	0.206	3.4	0.07	1562	2363	127	38	B	G	0.0022	14.1	0.92	2	8.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	5808	5.2	4.9	5.9	7.8	8.5	1.02	2.6	2.9	0.47	0.84	12.3	123	1.31	0.167	0.154	5.4	0.14	2115	2363	180	49	B	G	0.0065	38.0	1.87	431	8.3	6.1	0.30	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	25	5175	6.7	6.3	7.5	9.9	10.8	1.18	2.9	4.1	0.41	1.13	18.2	119	1.39	0.141	0.129	7.0	0.22	2621	2363	221	59	C	G	0.0138	71.5	2.82	1677	8.8	34.6	1.36	23	12.8	1.3	0.05	2	14.0	0.1	0.00
25	30	4553	8.1	7.7	9.0	11.7	12.8	1.33	3.2	5.3	0.37	1.46	23.5	116	1.48	0.127	0.116	8.3	0.29	3045	2363	250	66	C	G	0.0242	110.2	3.63	2556	9.5	76.7	2.53	213	13.1	14.2	0.47	36	14.7	2.7	0.09
30	35	3981	9.5	9.0	10.4	13.3	14.6	1.48	3.4	6.4	0.34	1.81	28.1	114	1.58	0.119	0.109	9.1	0.35	3380	2363	268	72	D	G	0.0378	150.4	4.25	2874	10.4	122.0	3.45	613	13.6	48.6	1.37	197	15.0	17.3	0.49
35	40	3477	10.8	10.3	11.7	14.8	16.2	1.63	3.6	7.4	0.33	2.19	31.7	111	1.70	0.115	0.105	9.7	0.39	3634	2363	278	76	D	G	0.0545	189.5	4.70	2858	11.3	165.5	4.10	1040	14.1	97.1	2.41	483	15.4	49.5	1.23
40	45	3043	12.0	11.5	12.9	16.1	17.6	1.77	3.9	8.3	0.31	2.60	34.6	109	1.81	0.113	0.103	10.0	0.43	3818	2363	282	79	D	G	0.0742	225.8	4.98	2688	12.3	205.2	4.52	1353	14.7	148.3	3.27	792	15.9	93.9	2.07
45	50	2674	13.2	12.7	14.0	17.3	18.9	1.91	4.1	9.2	0.30	3.01	36.8	108	1.93	0.112	0.102	10.1	0.46	3946	2363	282	81	D	G	0.0967	258.6	5.14	2465	13.3	240.6	4.78	1525	15.3	195.3	3.88	1037	16.5	141.8	2.82
50	55	2363	14.4	13.8	15.0	18.3	20.0	2.04	4.3	9.9	0.30	3.44	38.5	106	2.06	0.112	0.103	10.1	0.49	4032	2363	279	81	D	G	0.1217	287.6	5.20	2237	14.3	271.5	4.90	1584	16.0	235.8	4.26	1192	17.0	187.1	3.38
55	60	2101	15.5	14.9	15.9	19.3	21.0	2.17	4.5	10.6	0.29	3.88	39.7	104	2.18	0.113	0.104	10.1	0.51	4086	2363	274	82	D	G	0.1490	313.0	5.19	2022	15.3	298.3	4.94	1570	16.8	269.8	4.47	1268	17.7	227.2	3.76
60	65	1880	16.6	16.0	16.7	20.1	21.9	2.29	4.7	11.3	0.29	4.32	40.5	103	2.31	0.115	0.105	10.0	0.52	4115	2363	268	81	D	G	0.1781	334.8	5.12	1830	16.2	321.3	4.92	1514	17.5	298.1	4.56	1286	18.3	261.4	4.00
65	70	1693	17.6	17.0	17.5	20.9	22.7	2.40	4.9	11.9	0.29	4.77	41.1	101	2.43	0.116	0.107	9.8	0.53	4127	2363	262	81	D	G	0.2089	353.6	5.03	1660	17.2	341.0	4.85	1437	18.3	321.5	4.57	1266	19.0	290.0	4.12
70	75	1534	18.6	17.9	18.2	21.6	23.4	2.52	5.1	12.4	0.29	5.22	41.5	100	2.55	0.118	0.109	9.6	0.54	4126	2363	256	80	D	G	0.2409	369.5	4.90	1512	18.1	357.6	4.75	1353	19.0	340.9	4.52	1224	19.7	313.8	4.16
75	80	1399	19.5	18.9	18.9	22.3	24.1	2.62	5.2	12.9	0.29	5.66	41.8	99	2.67	0.120	0.111	9.5	0.55	4117	2363	249	79	D	G	0.2739	383.2	4.77	1384	19.0	371.9	4.63	1268	19.8	357.1	4.44	1170	20.4	333.7	4.15
80	85	1282	20.4	19.7	19.5	22.9	24.7	2.72	5.4	13.3	0.29	6.10	41.9	97	2.79	0.122	0.113	9.3	0.55	4101	2363	243	78	D	G	0.3077	394.5	4.62	1271	19.9	383.7	4.50	1186	20.6	370.2	4.34	1112	21.1	349.9	4.10
85	90	1182	21.3	20.6	20.0	23.4	25.2	2.82	5.6	13.7	0.29	6.54	42.0	96	2.91	0.124	0.115	9.1	0.56	4081	2363	237	77	D	G	0.3420	404.2	4.47	1175	20.7	393.8	4.36	1111	21.3	381.4	4.22	1053	21.7	363.6	4.02
90	95	1094	22.1	21.4	20.6	23.9	25.7	2.91	5.7	14.1	0.29	6.97	41.9	95	3.02	0.127	0.117	8.9	0.56	4060	2363	231	76	D	G	0.3764	411.8	4.32	1089	21.5	401.8	4.21	1040	22.0	390.2	4.09	996	22.4	374.5	3.93
95	100	1019	22.9	22.2	21.1	24.4	26.2	3.00	5.9	14.4	0.29	7.40	41.9	94	3.13	0.129	0.120	8.8	0.56	4037	2363	226	75	D	G	0.4111	418.9	4.17	1015	22.3	409.2	4.08	978	22.7	398.2	3.97	943	23.1	384.1	3.83
100	105	952	23.6	22.9	21.5	24.8	26.6	3.09	6.0	14.7	0.29	7.82	41.8	93	3.24	0.131	0.122	8.6	0.56	4014	2363	221	74	D	G	0.4455	424.1	4.03	949	23.0	414.7	3.94	920	23.4	404.2	3.84	892	23.7	391.6	3.72
105	110	893	24.4	23.7	21.9	25.2	27.0	3.17	6.2	15.0	0.29	8.23	41.6	92	3.35	0.133	0.124	8.4	0.57	3991	2363	216	73	D	G	0.4797	428.4	3.88	891	23.7	419.3	3.80	868	24.0	409.1	3.71	845	24.3	397.7	3.60
110	115	842	25.1	24.3	22.3	25.5	27.4	3.25	6.3	15.2	0.29	8.63	41.5	91	3.45	0.135	0.126	8.3	0.57	3970	2363	211	73	D	G	0.5137	432.5	3.75	840	24.4	423.5	3.67	822	24.7	413.7	3.59	804	25.0	403.3	3.50
115	120	796	25.7	25.0	22.7	25.9	27.7	3.32	6.4	15.4	0.29	9.03	41.3	89	3.54	0.137	0.128	8.2	0.57	3949	2363	207	72	D	G	0.5470	435.4	3.62	795	25.0	426.6	3.54	780	25.3	417.1	3.47	765	25.6	407.5	3.39
120	125	755	26.4	25.6	23.1	26.2	28.0	3.39	6.5	15.6	0.29	9.42	41.2	88	3.64	0.139	0.130	8.0	0.57	3930	2363	203	71	D	G	0.5797	437.7	3.49	754	25.7	429.2	3.42	742	25.9	419.8	3.35	730	26.1	411.0	3.28
125	130	718	27.0	26.2	23.4	26.5	28.3	3.46	6.7	15.7	0.29	9.80	41.0	87	3.73	0.141	0.132	7.9	0.57	3912	2363	200	70	D	G	0.6120	439.4	3.37	717	26.3	430.9	3.31	707	26.5	421.8	3.24	697	26.7	413.6	3.17
130	135	686	27.6	26.8	23.7	26.8	28.6	3.53	6.8	15.9	0.30	10.17	40.9	87	3.82	0.143	0.134	7.8	0.58	3897	2363	196	70	C	G	0.6434	441.4	3.26	686	26.8	433.1	3.20	677	27.1	424.1	3.13	669	27.2	416.5	3.08
135	140	656	28.1	27.4	24.0	27.0	28.8	3.59	6.9	16.0	0.30	10.53	40.8	86	3.90	0.144	0.135	7.7	0.58	3882	2363	193	69	C	G	0.6741	442.2	3.15	656	27.4	434.1	3.09	649	27.6	425.2	3.03	641	27.8	418.0	2.98
140	145	629	28.7	27.9	24.3	27.3	29.1	3.65	7.0	16.1	0.30	10.88	40.6	85	3.99	0.146	0.137	7.6	0.58	3870	2363	190	68	C	G	0.7040	442.8	3.05	629	27.9	434.8	2.99	623	28.1	426.0	2.93	617	28.3	419.4	2.89
145	150	605	29.2	28.5	24.5	27.5	29.3	3.71	7.1	16.2	0.30	11.23	40.5	84	4.07	0.148	0.139	7.5	0.58	3858	2363	188	68	C	G	0.7332	443.6	2.95	605	28.5	435.6	2.90	600	28.6	427.0	2.84	594	28.8	420.6	2.80
150	155	583	29.7	29.0	24.8	27.7	29.5	3.77	7.2	16.3	0.30	11.57	40.4	83	4.14	0.149	0.140	7.4	0.58	3849	2363	185	67	C	G	0.7614	443.9	2.86	583	29.0	436.1	2.81	579	29.1	427.5	2.75	574	29.2	421.5	2.71
155	160	563	30.2	29.5	25.0	27.9	29.7	3.82	7.2	16.3	0.30	11.89	40.3	82	4.21	0.151	0.142	7.3	0.58	3841	2363	183	67	C	G	0.7890	444.2	2.77	563	29.5	436.4	2.72	559	29.6	427.9	2.67	555	29.7	422.2	2.63
160	165	545	30.7	29.9	25.2	28.1	29.9	3.87	7.3	16.4	0.31	12.22	40.3	81	4.28	0.152	0.143	7.3	0.59	3835	2363	181	67	C	G	0.8156	444.5	2.69	545	29.9	436.7	2.64	542	30.0	428.3	2.59	538	30.2	422.9	2.56
165	170	528	31.1	30.4	25.4	28.3	30.1	3.92	7.4	16.4	0.31	12.53	40.2	80	4.35	0.154	0.145	7.2	0.59	3830	2363	179	66	C	G	0.8413	444.2	2.61	528	30.4	436.6	2.56	525	30.5	428.2	2.51	522	30.6	423.1	2.48
170	175	513	31.6	30.8	25.6	28.5	30.2	3.97	7.5	16.5	0.31	12.84	40.1	80	4.42	0.155	0.146	7.1	0.59	3826	2363	177	66	C	G	0.8663	444.4	2.53	513	30.8	436.8	2.49	511	30.9	428.5	2.44	508	31.0	423.6	2.42
175	180	499	32.0	31.2	25.8	28.7	30.4	4.02	7.5	16.5	0.31	13.14	40.1	79	4.48	0.156	0.147	7.1	0.59	3823	2363	175	66	C	G	0.8904	444.3	2.46	499	31.2	436.8	2.42	497	31.3	428.5	2.38	494	31.4	423.8	2.35
180	185	486	32.4	31.6	26.0	28.8	30.5	4.06	7.6	16.5	0.31	13.43	40.1	78	4.54	0.157	0.149	7.0	0.59	3822	2363	174	65	C	G	0.9138	444.1	2.40	486	31.6	436.5	2.35	484	31.7	428.3	2.31	482	31.8	423.8	2.29
SI = 20 m	**Initial Density = 7500 stems/ha**																																							
5	10	7287	1.8	1.6	2.5	3.4	3.6	0.72	1.6	0.7	0.70	0.41	1.8	164	1.17	0.349	0.328	1.3	0.02	1097	2467	70	30	A	G	0.0003	2.2	0.21	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	6817	3.5	3.3	4.2	5.6	6.1	0.86	2.2	1.7	0.56	0.59	6.6	132	1.21	0.215	0.200	3.5	0.08	1640	2467	133	40	B	G	0.0021	14.4	0.94	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	6185	5.1	4.8	5.9	7.8	8.5	1.01	2.6	2.9	0.46	0.83	12.6	124	1.27	0.162	0.149	5.6	0.15	2206	2467	188	51	C	G	0.0063	38.8	1.91	400	8.3	5.6	0.28	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	25	5493	6.6	6.2	7.4	9.9	10.8	1.16	2.9	4.1	0.40	1.11	18.7	120	1.35	0.137	0.125	7.3	0.22	2719	2467	230	61	C	G	0.0132	72.7	2.87	1675	8.8	33.7	1.33	19	12.7	1.0	0.04	0	0.0	0.0	0.00
25	30	4817	8.0	7.6	8.9	11.7	12.8	1.32	3.1	5.3	0.37	1.43	24.1	117	1.44	0.123	0.113	8.5	0.29	3146	2467	259	69	C	G	0.0233	112.0	3.69	2620	9.4	76.4	2.52	192	13.1	12.7	0.42	30	14.7	2.2	0.07
30	35	4198	9.3	8.9	10.3	13.3	14.6	1.47	3.4	6.4	0.34	1.77	28.7	114	1.54	0.116	0.106	9.4	0.35	3480	2467	277	74	D	G	0.0364	152.6	4.32	2976	10.3	122.5	3.46	586	13.5	45.9	1.30	178	15.0	15.5	0.44
35	40	3655	10.6	10.1	11.6	14.8	16.2	1.61	3.6	7.4	0.32	2.15	32.4	112	1.65	0.112	0.102	9.9	0.40	3730	2467	287	78	D	G	0.0525	191.9	4.76	2971	11.2	166.6	4.13	1026	14.0	94.3	2.34	459	15.4	46.4	1.15
40	45	3191	11.9	11.3	12.8	16.1	17.6	1.75	3.8	8.3	0.31	2.54	35.3	110	1.77	0.110	0.100	10.2	0.44	3910	2467	290	81	D	G	0.0716	228.5	5.04	2799	12.1	206.9	4.56	1359	14.6	146.3	3.23	774	15.8	90.4	1.99
45	50	2798	13.1	12.5	13.9	17.3	18.9	1.89	4.0	9.1	0.30	2.95	37.5	108	1.89	0.110	0.100	10.4	0.47	4034	2467	289	83	D	G	0.0935	261.5	5.19	2567	13.1	242.7	4.82	1548	15.2	194.4	3.86	1033	16.4	138.8	2.76
50	55	2467	14.2	13.6	14.9	18.3	20.0	2.02	4.2	9.9	0.30	3.37	39.1	106	2.01	0.110	0.101	10.4	0.50	4115	2467	286	83	D	G	0.1178	290.6	5.25	2327	14.1	273.9	4.95	1618	15.9	235.8	4.26	1201	16.9	184.9	3.34
55	60	2190	15.3	14.7	15.8	19.3	21.0	2.15	4.4	10.6	0.29	3.80	40.3	105	2.14	0.111	0.102	10.3	0.51	4163	2467	281	83	D	G	0.1443	316.1	5.24	2103	15.1	300.9	4.99	1611	16.6	270.7	4.49	1287	17.6	225.9	3.74
60	65	1956	16.4	15.8	16.6	20.1	21.9	2.27	4.6	11.2	0.29	4.24	41.2	103	2.26	0.112	0.103	10.2	0.53	4188	2467	275	83	D	G	0.1728	338.0	5.17	1900	16.1	324.0	4.96	1557	17.4	299.5	4.58	1311	18.2	260.8	3.99
65	70	1759	17.4	16.8	17.4	20.9	22.7	2.38	4.8	11.8	0.29	4.68	41.7	102	2.38	0.114	0.105	10.0	0.54	4195	2467	268	82	D	G	0.2028	356.8	5.07	1723	17.0	343.8	4.89	1480	18.1	323.3	4.60	1295	18.9	290.2	4.12
70	75	1591	18.4	17.7	18.1	21.6	23.4	2.49	5.0	12.4	0.29	5.12	42.1	100	2.51	0.116	0.107	9.8	0.55	4190	2467	261	81	D	G	0.2342	372.6	4.94	1567	17.9	360.4	4.78	1393	18.9	342.8	4.55	1253	19.5	314.3	4.17
75	80	1449	19.3	18.6	18.8	22.2	24.1	2.60	5.2	12.8	0.28	5.56	42.3	99	2.63	0.118	0.109	9.6	0.55	4176	2467	254	81	D	G	0.2665	386.2	4.81	1432	18.8	374.7	4.66	1306	19.6	359.2	4.47	1200	20.2	334.6	4.16
80	85	1326	20.2	19.5	19.4	22.8	24.7	2.70	5.4	13.3	0.28	5.99	42.4	98	2.75	0.120	0.111	9.4	0.56	4156	2467	248	79	D	G	0.2997	397.4	4.66	1314	19.6	386.3	4.53	1221	20.4	372.4	4.36	1141	20.9	351.1	4.11
85	90	1221	21.0	20.4	19.9	23.4	25.2	2.80	5.5	13.7	0.28	6.42	42.4	97	2.86	0.123	0.113	9.3	0.56	4133	2467	241	78	D	G	0.3333	407.0	4.50	1213	20.5	396.4	4.39	1143	21.1	383.6	4.25	1081	21.6	364.9	4.04
90	95	1130	21.9	21.2	20.5	23.9	25.7	2.89	5.7	14.0	0.29	6.85	42.4	95	2.97	0.125	0.116	9.1	0.56	4108	2467	235	77	D	G	0.3673	415.0	4.35	1124	21.3	404.8	4.25	1071	21.8	392.8	4.12	1023	22.2	376.4	3.95
95	100	1050	22.6	22.0	20.9	24.3	26.2	2.98	5.8	14.4	0.29	7.27	42.3	94	3.09	0.127	0.118	8.9	0.57	4082	2467	230	76	D	G	0.4012	421.3	4.20	1046	22.0	411.5	4.10	1005	22.5	400.2	3.99	967	22.9	385.5	3.84
100	105	981	23.4	22.7	21.4	24.7	26.6	3.06	6.0	14.7	0.29	7.69	42.2	93	3.19	0.129	0.120	8.7	0.57	4056	2467	224	75	D	G	0.4353	427.0	4.05	978	22.8	417.4	3.96	946	23.2	406.7	3.86	916	23.5	393.5	3.74
105	110	919	24.1	23.4	21.8	25.1	27.0	3.14	6.1	14.9	0.29	8.10	42.0	92	3.30	0.131	0.122	8.6	0.57	4031	2467	219	74	D	G	0.4690	431.0	3.91	917	23.5	421.7	3.82	892	23.8	411.4	3.73	867	24.1	399.5	3.62
110	115	865	24.8	24.1	22.2	25.5	27.4	3.22	6.2	15.1	0.29	8.50	41.8	91	3.40	0.133	0.124	8.4	0.57	4007	2467	214	73	D	G	0.5024	434.6	3.77	863	24.2	425.5	3.69	843	24.5	415.5	3.60	824	24.7	404.7	3.51
115	120	817	25.5	24.8	22.6	25.8	27.7	3.30	6.4	15.3	0.29	8.89	41.7	90	3.50	0.135	0.126	8.3	0.57	3984	2467	210	73	D	G	0.5354	437.4	3.63	816	24.8	428.6	3.56	800	25.1	418.9	3.48	783	25.3	408.9	3.40
120	125	775	26.1	25.4	22.9	26.2	28.0	3.37	6.5	15.5	0.29	9.27	41.5	89	3.59	0.137	0.128	8.1	0.57	3962	2467	206	72	D	G	0.5679	440.1	3.51	774	25.4	431.4	3.44	761	25.7	421.9	3.37	748	25.9	412.8	3.29
125	130	737	26.7	26.0	23.3	26.5	28.3	3.44	6.6	15.7	0.29	9.65	41.4	88	3.68	0.139	0.130	8.0	0.58	3943	2467	202	71	D	G	0.5997	442.0	3.39	736	26.0	433.4	3.32	726	26.3	424.2	3.25	714	26.5	415.7	3.19
130	135	703	27.3	26.6	23.6	26.7	28.6	3.50	6.7	15.8	0.30	10.02	41.2	87	3.77	0.141	0.132	7.9	0.58	3925	2467	199	70	D	G	0.6309	443.5	3.28	703	26.6	435.1	3.21	694	26.8	426.0	3.15	684	27.0	418.1	3.09
135	140	672	27.9	27.2	23.9	27.0	28.8	3.56	6.8	16.0	0.30	10.38	41.1	86	3.86	0.143	0.134	7.8	0.58	3908	2467	196	70	C	G	0.6613	444.4	3.17	672	27.2	436.1	3.11	664	27.4	427.2	3.04	656	27.5	419.8	2.99
140	145	644	28.4	27.7	24.1	27.2	29.1	3.63	6.9	16.1	0.30	10.73	40.9	85	3.94	0.145	0.136	7.7	0.58	3894	2467	193	69	C	G	0.6910	445.0	3.06	644	27.7	436.9	3.01	637	27.9	428.0	2.94	631	28.0	421.2	2.90
145	150	619	29.0	28.2	24.4	27.5	29.3	3.68	7.0	16.1	0.30	11.07	40.8	84	4.02	0.146	0.137	7.6	0.58	3881	2467	190	69	C	G	0.7200	445.7	2.96	619	28.2	437.6	2.91	613	28.4	428.8	2.85	608	28.5	422.4	2.81
150	155	596	29.5	28.7	24.7	27.7	29.5	3.74	7.1	16.2	0.30	11.41	40.7	83	4.10	0.148	0.139	7.5	0.58	3870	2467	187	68	C	G	0.7482	445.9	2.87	596	28.7	437.9	2.82	591	28.9	429.2	2.76	586	29.0	423.1	2.72
155	160	575	30.0	29.2	24.9	27.9	29.7	3.79	7.2	16.3	0.30	11.74	40.6	82	4.17	0.150	0.140	7.4	0.59	3860	2467	185	67	C	G	0.7755	445.9	2.78	575	29.2	438.0	2.73	571	29.4	429.4	2.68	567	29.5	423.6	2.64
160	165	556	30.4	29.7	25.1	28.1	29.9	3.85	7.3	16.3	0.30	12.06	40.5	82	4.24	0.151	0.142	7.3	0.59	3852	2467	182	67	C	G	0.8018	445.8	2.70	556	29.7	438.0	2.65	553	29.8	429.6	2.60	549	29.9	424.1	2.56
165	170	539	30.9	30.1	25.3	28.3	30.1	3.90	7.3	16.4	0.31	12.37	40.4	81	4.31	0.152	0.143	7.3	0.59	3846	2467	181	67	C	G	0.8276	446.1	2.62	539	30.1	438.3	2.57	536	30.3	429.9	2.52	533	30.3	424.7	2.49
170	175	523	31.3	30.6	25.5	28.4	30.2	3.94	7.4	16.4	0.31	12.68	40.3	80	4.37	0.154	0.145	7.2	0.59	3841	2467	179	66	C	G	0.8524	445.8	2.54	523	30.6	438.1	2.50	521	30.7	429.8	2.45	517	30.8	424.7	2.42
175	180	508	31.8	31.0	25.7	28.6	30.4	3.99	7.5	16.4	0.31	12.98	40.3	79	4.44	0.155	0.146	7.1	0.59	3837	2467	177	66	C	G	0.8764	445.2	2.47	508	31.0	437.6	2.43	506	31.1	429.3	2.38	503	31.2	424.5	2.35
180	185	494	32.2	31.4	25.9	28.8	30.5	4.04	7.5	16.5	0.31	13.27	40.2	78	4.50	0.156	0.147	7.1	0.59	3835	2467	175	66	C	G	0.8996	444.4	2.40	494	31.4	436.9	2.36	492	31.5	428.6	2.31	490	31.6	424.0	2.29

Table A114. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 20 m Initial Density = 8000 stems/ha																																								
5	10	7766	1.7	1.6	2.5	3.4	3.6	0.72	1.6	0.7	0.70	0.41	1.8	167	1.13	0.338	0.318	1.4	0.02	1160	2569	73	32	B	G	0.0003	2.3	0.22	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	7250	3.5	3.2	4.2	5.6	6.1	0.85	2.2	1.7	0.55	0.58	6.8	133	1.17	0.209	0.193	3.7	0.08	1717	2569	139	42	B	G	0.0020	14.6	0.95	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	6560	5.0	4.7	5.8	7.8	8.5	1.00	2.6	2.9	0.46	0.81	12.9	125	1.23	0.158	0.145	5.8	0.15	2295	2569	195	53	C	G	0.0060	39.5	1.94	370	8.2	5.1	0.25	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	25	5808	6.5	6.1	7.4	9.8	10.8	1.15	2.8	4.1	0.40	1.09	19.1	121	1.31	0.133	0.122	7.5	0.23	2814	2569	238	63	C	G	0.0127	73.9	2.91	1668	8.7	32.8	1.29	15	12.7	0.8	0.03	0	0.0	0.0	0.00
25	30	5076	7.9	7.5	8.9	11.7	12.8	1.30	3.1	5.3	0.36	1.40	24.7	118	1.40	0.120	0.110	8.8	0.30	3243	2569	268	71	D	G	0.0224	113.6	3.74	2676	9.4	76.0	2.50	173	13.0	11.4	0.38	25	14.6	1.8	0.06
30	35	4411	9.2	8.7	10.3	13.3	14.6	1.45	3.3	6.3	0.34	1.74	29.3	115	1.51	0.113	0.103	9.7	0.36	3576	2569	286	77	D	G	0.0350	154.6	4.37	3072	10.2	122.8	3.47	559	13.4	43.3	1.22	160	14.9	13.8	0.39
35	40	3831	10.5	10.0	11.5	14.8	16.2	1.60	3.5	7.3	0.32	2.10	33.0	113	1.62	0.109	0.100	10.2	0.41	3823	2569	295	81	D	G	0.0507	194.3	4.81	3080	11.1	167.6	4.15	1010	13.9	91.6	2.27	435	15.3	43.5	1.08
40	45	3336	11.7	11.2	12.7	16.1	17.6	1.73	3.7	8.2	0.31	2.49	35.9	110	1.73	0.108	0.098	10.5	0.45	3998	2569	298	83	D	G	0.0693	231.1	5.10	2906	12.0	208.4	4.59	1362	14.5	144.2	3.18	756	15.8	87.0	1.92
45	50	2918	12.9	12.4	13.8	17.2	18.9	1.87	4.0	9.1	0.30	2.89	38.1	109	1.85	0.107	0.098	10.6	0.48	4117	2569	297	84	D	G	0.0905	264.1	5.24	2665	13.0	244.4	4.85	1567	15.1	193.2	3.84	1026	16.3	135.6	2.69
50	55	2569	14.0	13.5	14.8	18.3	20.0	2.00	4.2	9.8	0.29	3.30	39.7	107	1.97	0.108	0.099	10.6	0.50	4193	2569	293	85	D	G	0.1142	293.4	5.30	2416	14.0	276.0	4.99	1650	15.8	235.7	4.26	1207	16.8	182.5	3.30
55	60	2276	15.1	14.5	15.7	19.2	21.0	2.12	4.4	10.5	0.29	3.73	40.9	105	2.10	0.109	0.100	10.5	0.52	4237	2569	287	85	D	G	0.1401	318.9	5.28	2181	14.9	303.2	5.02	1648	16.5	271.2	4.49	1303	17.4	224.3	3.72
60	65	2030	16.2	15.6	16.5	20.1	21.9	2.24	4.6	11.2	0.29	4.16	41.7	104	2.22	0.111	0.101	10.4	0.54	4256	2569	281	84	D	G	0.1679	340.8	5.21	1969	15.9	326.4	4.99	1597	17.2	300.6	4.60	1333	18.1	260.0	3.98
65	70	1822	17.2	16.6	17.3	20.8	22.7	2.36	4.8	11.8	0.28	4.59	42.3	102	2.34	0.112	0.103	10.2	0.55	4259	2569	273	84	D	G	0.1973	359.4	5.11	1782	16.8	346.1	4.92	1519	18.0	324.6	4.61	1320	18.7	289.8	4.12
70	75	1647	18.2	17.5	18.0	21.6	23.4	2.47	4.9	12.3	0.28	5.02	42.6	101	2.46	0.114	0.105	10.0	0.55	4250	2569	266	83	D	G	0.2280	375.5	4.98	1620	17.7	362.9	4.82	1432	18.7	344.6	4.57	1282	19.4	314.8	4.18
75	80	1497	19.1	18.4	18.6	22.2	24.1	2.57	5.1	12.8	0.28	5.46	42.8	99	2.58	0.116	0.107	9.8	0.56	4232	2569	259	82	D	G	0.2597	388.8	4.84	1479	18.6	376.9	4.69	1342	19.5	360.9	4.49	1228	20.1	335.2	4.17
80	85	1369	20.0	19.3	19.3	22.8	24.7	2.68	5.3	13.2	0.28	5.89	42.9	98	2.70	0.119	0.109	9.6	0.56	4209	2569	252	81	D	G	0.2923	400.1	4.69	1356	19.4	388.8	4.56	1255	20.2	374.3	4.39	1169	20.7	352.1	4.13
85	90	1259	20.8	20.2	19.8	23.3	25.2	2.77	5.5	13.6	0.28	6.32	42.9	97	2.82	0.121	0.112	9.4	0.57	4183	2569	245	80	D	G	0.3253	409.5	4.53	1250	20.3	398.7	4.41	1175	20.9	385.6	4.27	1108	21.4	366.1	4.05
90	95	1164	21.6	21.0	20.3	23.8	25.7	2.86	5.6	14.0	0.28	6.74	42.8	96	2.93	0.123	0.114	9.2	0.57	4155	2569	239	78	D	G	0.3587	417.5	4.38	1157	21.1	407.1	4.27	1100	21.6	394.8	4.14	1048	22.0	377.6	3.96
95	100	1081	22.4	21.7	20.8	24.3	26.2	2.95	5.8	14.3	0.28	7.16	42.7	95	3.04	0.125	0.116	9.0	0.57	4126	2569	233	77	D	G	0.3921	423.9	4.22	1076	21.8	413.9	4.12	1032	22.3	402.3	4.01	991	22.7	387.1	3.86
100	105	1008	23.2	22.5	21.3	24.7	26.6	3.04	5.9	14.6	0.29	7.57	42.5	93	3.15	0.128	0.118	8.8	0.57	4097	2569	228	76	D	G	0.4257	429.1	4.07	1005	22.5	419.3	3.98	970	23.0	408.3	3.88	938	23.3	394.7	3.75
105	110	945	23.9	23.2	21.7	25.1	27.0	3.12	6.1	14.9	0.29	7.97	42.4	92	3.25	0.130	0.120	8.7	0.57	4069	2569	223	75	D	G	0.4589	433.7	3.93	942	23.3	424.3	3.84	915	23.6	413.7	3.75	889	23.9	401.4	3.64
110	115	888	24.6	23.9	22.1	25.5	27.4	3.20	6.2	15.1	0.29	8.37	42.2	91	3.36	0.132	0.123	8.5	0.58	4042	2569	217	74	D	G	0.4920	436.9	3.79	886	23.9	427.6	3.71	865	24.3	417.5	3.62	843	24.6	406.2	3.52
115	120	839	25.3	24.6	22.5	25.8	27.7	3.27	6.3	15.3	0.29	8.76	42.0	90	3.45	0.134	0.125	8.4	0.58	4017	2569	213	73	D	G	0.5246	440.1	3.66	838	24.6	431.1	3.58	820	24.9	421.2	3.50	803	25.1	411.0	3.41
120	125	794	25.9	25.2	22.8	26.1	28.0	3.34	6.4	15.5	0.29	9.14	41.8	89	3.55	0.136	0.127	8.2	0.58	3993	2569	209	73	D	G	0.5567	442.0	3.53	793	25.2	433.2	3.46	779	25.5	423.6	3.38	764	25.7	414.1	3.30
125	130	755	26.5	25.8	23.1	26.4	28.3	3.41	6.5	15.6	0.29	9.51	41.7	88	3.64	0.138	0.129	8.1	0.58	3971	2569	205	72	D	G	0.5882	444.1	3.41	754	25.8	435.4	3.34	743	26.0	426.1	3.27	731	26.3	417.3	3.20
130	135	719	27.1	26.4	23.5	26.7	28.6	3.48	6.7	15.8	0.29	9.88	41.5	87	3.73	0.140	0.130	8.0	0.58	3951	2569	201	71	D	G	0.6191	445.1	3.29	718	26.4	436.6	3.23	709	26.6	427.4	3.16	699	26.8	419.3	3.10
135	140	687	27.7	26.9	23.7	26.9	28.8	3.54	6.8	15.9	0.30	10.24	41.3	86	3.82	0.142	0.132	7.9	0.58	3933	2569	198	70	D	G	0.6492	446.0	3.18	687	26.9	437.7	3.12	678	27.2	428.6	3.05	670	27.3	421.0	3.00
140	145	658	28.2	27.5	24.0	27.2	29.1	3.60	6.9	16.0	0.30	10.59	41.2	85	3.90	0.143	0.134	7.7	0.58	3917	2569	195	70	C	G	0.6787	446.6	3.07	658	27.5	438.4	3.02	651	27.7	429.4	2.95	644	27.8	422.4	2.91
145	150	632	28.7	28.0	24.3	27.4	29.3	3.66	7.0	16.1	0.30	10.93	41.0	84	3.98	0.145	0.136	7.7	0.58	3902	2569	192	69	C	G	0.7074	447.1	2.97	632	28.0	439.0	2.92	626	28.2	430.2	2.86	620	28.3	423.5	2.82
150	155	608	29.3	28.5	24.5	27.6	29.5	3.72	7.0	16.2	0.30	11.26	40.9	84	4.06	0.147	0.137	7.6	0.58	3890	2569	189	68	C	G	0.7354	447.1	2.88	608	28.5	439.1	2.83	603	28.7	430.4	2.77	597	28.8	424.0	2.73
155	160	587	29.7	29.0	24.8	27.8	29.7	3.77	7.1	16.3	0.30	11.59	40.8	83	4.13	0.148	0.139	7.5	0.59	3879	2569	187	68	C	G	0.7625	447.6	2.79	587	29.0	439.7	2.74	583	29.1	431.1	2.69	578	29.3	425.1	2.65
160	165	567	30.2	29.5	25.0	28.0	29.9	3.82	7.2	16.3	0.30	11.91	40.7	82	4.20	0.150	0.141	7.4	0.59	3869	2569	184	68	C	G	0.7889	447.3	2.71	567	29.5	439.5	2.66	563	29.6	430.9	2.61	559	29.7	425.2	2.57
165	170	549	30.7	29.9	25.2	28.2	30.1	3.87	7.3	16.4	0.31	12.22	40.6	81	4.27	0.151	0.142	7.3	0.59	3861	2569	182	67	C	G	0.8146	447.2	2.63	549	29.9	439.4	2.58	546	30.0	430.9	2.53	542	30.2	425.5	2.50
170	175	532	31.1	30.4	25.4	28.4	30.2	3.92	7.4	16.4	0.31	12.53	40.5	80	4.34	0.153	0.143	7.3	0.59	3855	2569	180	67	C	G	0.8393	446.5	2.55	532	30.4	438.7	2.50	529	30.5	430.3	2.45	526	30.6	425.2	2.42
175	180	517	31.5	30.8	25.6	28.6	30.4	3.97	7.4	16.4	0.31	12.82	40.4	79	4.40	0.154	0.145	7.2	0.59	3850	2569	178	66	C	G	0.8632	446.3	2.47	517	30.8	438.6	2.43	515	30.9	430.3	2.39	512	31.0	425.3	2.36
180	185	503	32.0	31.2	25.8	28.7	30.5	4.01	7.5	16.4	0.31	13.12	40.4	79	4.46	0.155	0.146	7.1	0.59	3846	2569	177	66	C	G	0.8865	445.9	2.41	503	31.2	438.2	2.36	501	31.3	429.9	2.32	498	31.4	425.2	2.29
SI = 20 m Initial Density = 9000 stems/ha																																								
5	10	8723	1.7	1.5	2.5	3.3	3.6	0.71	1.6	0.7	0.69	0.40	1.9	171	1.07	0.320	0.300	1.5	0.02	1283	2766	79	35	B	G	0.0003	2.3	0.22	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	8113	3.3	3.1	4.1	5.6	6.1	0.84	2.1	1.7	0.54	0.57	7.1	135	1.11	0.198	0.183	3.9	0.08	1869	2766	149	46	B	G	0.0019	15.1	0.98	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	7303	4.9	4.6	5.8	7.8	8.5	0.99	2.5	2.9	0.45	0.79	13.6	127	1.17	0.150	0.138	6.1	0.16	2466	2766	210	58	C	G	0.0056	40.7	2.00	315	8.2	4.2	0.21	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	25	6429	6.3	5.9	7.3	9.8	10.8	1.13	2.7	4.1	0.39	1.05	20.0	122	1.25	0.127	0.116	8.0	0.24	2997	2766	254	67	C	G	0.0118	76.1	3.00	1641	8.6	30.9	1.22	10	12.6	0.5	0.02	0	0.0	0.0	0.00
25	30	5587	7.6	7.2	8.8	11.6	12.8	1.28	3.0	5.2	0.36	1.35	25.7	119	1.34	0.115	0.105	9.3	0.32	3428	2766	284	75	D	G	0.0209	116.6	3.84	2770	9.2	74.9	2.47	140	13.0	9.1	0.30	17	14.6	1.2	0.04
30	35	4829	9.0	8.5	10.2	13.3	14.6	1.42	3.2	6.3	0.33	1.67	30.4	116	1.44	0.108	0.099	10.2	0.38	3758	2766	302	81	D	G	0.0328	158.2	4.47	3246	10.0	123.0	3.48	507	13.4	38.5	1.09	131	14.9	11.1	0.31
35	40	4173	10.2	9.7	11.4	14.7	16.2	1.57	3.4	7.2	0.32	2.02	34.2	114	1.55	0.105	0.096	10.7	0.43	3997	2766	311	84	D	G	0.0475	198.4	4.92	3282	10.9	169.0	4.19	973	13.8	86.1	2.13	389	15.2	38.1	0.94
40	45	3618	11.4	10.9	12.6	16.0	17.6	1.70	3.6	8.1	0.30	2.40	37.1	111	1.66	0.104	0.094	11.0	0.47	4164	2766	313	87	D	G	0.0651	235.5	5.19	3107	11.8	210.8	4.65	1359	14.4	139.8	3.08	716	15.7	80.4	1.77
45	50	3153	12.6	12.1	13.6	17.2	18.9	1.84	3.8	9.0	0.30	2.79	39.3	109	1.78	0.104	0.094	11.1	0.50	4273	2766	311	88	D	G	0.0853	268.8	5.34	2852	12.7	247.5	4.92	1597	15.0	190.5	3.78	1007	16.1	129.3	2.57
50	55	2766	13.7	13.2	14.6	18.2	20.0	1.96	4.1	9.7	0.29	3.19	40.9	108	1.90	0.104	0.095	11.0	0.52	4339	2766	306	88	D	G	0.1078	298.2	5.39	2584	13.7	279.5	5.05	1703	15.6	234.6	4.24	1212	16.7	177.4	3.20
55	60	2443	14.8	14.2	15.5	19.2	21.0	2.09	4.3	10.4	0.29	3.60	42.0	106	2.02	0.106	0.096	10.9	0.54	4374	2766	299	88	D	G	0.1325	323.8	5.37	2330	14.6	307.0	5.09	1714	16.3	271.5	4.50	1327	17.2	220.6	3.66
60	65	2173	15.8	15.2	16.3	20.0	21.9	2.21	4.5	11.1	0.28	4.01	42.8	104	2.15	0.107	0.098	10.8	0.55	4385	2766	292	87	D	G	0.1591	345.8	5.29	2101	15.6	330.5	5.06	1669	17.0	301.9	4.62	1372	17.9	257.9	3.95
65	70	1946	16.8	16.2	17.1	20.8	22.7	2.32	4.6	11.6	0.28	4.44	43.3	103	2.27	0.109	0.100	10.6	0.56	4379	2766	284	86	D	G	0.1873	364.5	5.18	1898	16.5	350.4	4.98	1593	17.7	326.8	4.65	1367	18.5	289.0	4.11
70	75	1754	17.8	17.2	17.8	21.5	23.4	2.43	4.8	12.2	0.28	4.86	43.6	102	2.39	0.111	0.102	10.3	0.57	4362	2766	276	85	D	G	0.2168	380.3	5.05	1722	17.4	367.1	4.87	1503	18.4	347.2	4.61	1332	19.1	314.7	4.18
75	80	1592	18.7	18.1	18.4	22.1	24.1	2.53	5.0	12.7	0.28	5.28	43.8	100	2.51	0.113	0.104	10.1	0.57	4337	2766	268	84	D	G	0.2474	393.8	4.90	1570	18.2	381.4	4.75	1411	19.1	364.1	4.53	1281	19.8	336.1	4.18
80	85	1453	19.6	18.9	19.0	22.7	24.7	2.63	5.2	13.1	0.28	5.70	43.8	99	2.62	0.116	0.106	9.9	0.58	4308	2766	261	83	D	G	0.2787	405.0	4.74	1438	19.1	393.3	4.61	1321	19.9	377.9	4.43	1221	20.4	353.6	4.14
85	90	1333	20.4	19.8	19.6	23.2	25.2	2.73	5.3	13.5	0.28	6.12	43.7	98	2.74	0.118	0.108	9.7	0.58	4275	2766	253	82	D	G	0.3107	414.2	4.58	1322	19.9	402.9	4.46	1235	20.6	389.0	4.31	1158	21.1	367.9	4.07
90	95	1230	21.2	20.6	20.1	23.7	25.7	2.82	5.5	13.9	0.28	6.53	43.6	96	2.85	0.120	0.111	9.5	0.58	4241	2766	246	80	D	G	0.3430	421.9	4.42	1222	20.7	411.2	4.31	1156	21.3	398.3	4.18	1096	21.7	379.7	3.98
95	100	1140	22.0	21.3	20.6	24.2	26.2	2.91	5.7	14.2	0.28	6.94	43.4	95	2.96	0.122	0.113	9.3	0.58	4206	2766	240	79	D	G	0.3756	428.2	4.27	1134	21.4	417.8	4.16	1083	22.0	405.7	4.04	1036	22.4	389.2	3.88
100	105	1062	22.8	22.1	21.1	24.6	26.6	2.99	5.8	14.5	0.28	7.34	43.3	94	3.07	0.125	0.115	9.1	0.58	4172	2766	234	78	D	G	0.4081	433.4	4.11	1058	22.1	423.4	4.02	1018	22.6	412.0	3.91	981	23.0	397.3	3.77
105	110	993	23.5	22.8	21.5	25.0	27.0	3.07	5.9	14.8	0.28	7.74	43.0	93	3.17	0.127	0.117	8.9	0.58	4140	2766	228	77	D	G	0.4406	437.5	3.96	990	22.9	427.8	3.88	959	23.3	416.9	3.78	929	23.6	403.6	3.66
110	115	933	24.2	23.5	21.9	25.4	27.4	3.15	6.1	15.0	0.29	8.13	42.9	92	3.27	0.129	0.120	8.7	0.58	4108	2766	223	76	D	G	0.4728	441.1	3.82	931	23.5	431.6	3.74	906	23.9	421.2	3.65	881	24.2	409.1	3.55
115	120	879	24.8	24.1	22.2	25.7	27.7	3.22	6.2	15.2	0.29	8.51	42.6	91	3.37	0.131	0.122	8.6	0.58	4079	2766	218	75	D	G	0.5047	443.6	3.69	877	24.2	434.3	3.61	857	24.5	424.2	3.52	837	24.8	413.2	3.43
120	125	832	25.5	24.8	22.6	26.0	28.0	3.30	6.3	15.4	0.29	8.89	42.4	90	3.47	0.133	0.124	8.4	0.58	4051	2766	214	74	D	G	0.5361	446.0	3.56	831	24.8	437.0	3.49	814	25.1	427.1	3.41	798	25.3	417.0	3.33
125	130	789	26.1	25.4	22.9	26.3	28.3	3.36	6.5	15.6	0.29	9.26	42.2	89	3.56	0.135	0.126	8.3	0.58	4025	2766	210	73	D	G	0.5669	447.3	3.43	788	25.4	438.5	3.36	775	25.7	428.9	3.29	761	25.9	419.6	3.22
130	135	751	26.7	26.0	23.2	26.6	28.6	3.43	6.6	15.7	0.29	9.62	42.0	88	3.65	0.137	0.128	8.1	0.58	4002	2766	206	72	D	G	0.5973	448.6	3.31	750	26.0	439.9	3.25	739	26.2	430.5	3.18	728	26.4	421.9	3.12
135	140	716	27.3	26.5	23.5	26.9	28.8	3.49	6.7	15.8	0.29	9.97	41.8	87	3.74	0.139	0.130	8.0	0.58	3980	2766	202	71	D	G	0.6270	448.9	3.20	716	26.5	440.4	3.14	706	26.8	431.1	3.07	696	27.0	423.1	3.01
140	145	686	27.8	27.1	23.8	27.1	29.1	3.55	6.8	15.9	0.30	10.32	41.7	86	3.82	0.141	0.131	7.9	0.59	3960	2766	199	71	D	G	0.6560	450.0	3.10	686	27.1	441.6	3.04	678	27.3	432.5	2.98	669	27.5	425.0	2.92
145	150	657	28.3	27.6	24.0	27.3	29.3	3.61	6.9	16.0	0.30	10.66	41.4	85	3.90	0.143	0.133	7.8	0.59	3943	2766	195	70	D	G	0.6843	449.6	2.99	657	27.6	441.3	2.94	650	27.8	432.3	2.88	643	27.9	425.3	2.83
150	155	632	28.8	28.1	24.3	27.6	29.5	3.67	7.0	16.1	0.30	10.99	41.3	84	3.98	0.144	0.135	7.7	0.59	3927	2766	193	69	C	G	0.7119	449.9	2.90	632	28.1	441.8	2.84	626	28.3	432.9	2.79	620	28.4	426.3	2.74
155	160	609	29.3	28.6	24.5	27.8	29.7	3.72	7.0	16.2	0.30	11.31	41.2	83	4.05	0.146	0.136	7.6	0.59	3913	2766	190	69	C	G	0.7388	449.9	2.81	609	28.6	441.8	2.76	604	28.7	433.1	2.70	599	28.9	426.8	2.66
160	165	588	29.8	29.1	24.7	28.0	29.9	3.78	7.1	16.2	0.30	11.63	41.0	82	4.12	0.148	0.138	7.5	0.59	3901	2766	187	68	C	G	0.7648	449.7	2.72	588	29.1	441.8	2.67	584	29.2	433.1	2.62	579	29.3	427.1	2.58
165	170	568	30.3	29.5	24.9	28.1	30.1	3.83	7.2	16.3	0.30	11.94	40.9	82	4.20	0.149	0.140	7.4	0.59	3891	2766	185	68	C	G	0.7901	448.8	2.63	568	29.5	440.9	2.59	564	29.7	432.3	2.54	560	29.8	426.7	2.50
170	175	551	30.7	30.0	25.1	28.3	30.2	3.88	7.3	16.3	0.31	12.24	40.8	81	4.26	0.150	0.141	7.4	0.59	3882	2766	183	67	C	G	0.8147	448.9	2.56	551	30.0	441.1	2.52	548	30.1	432.6	2.47	544	30.2	427.2	2.44
175	180	534	31.1	30.4	25.3	28.5	30.4	3.92	7.3	16.3	0.31	12.54	40.7	80	4.33	0.152	0.142	7.3	0.59	3874	2766	181	67	C	G	0.8386	447.8	2.48	534	30.4	440.0	2.44	531	30.5	431.5	2.39	528	30.6	426.4	2.36
180	185	519	31.6	30.8	25.5	28.6	30.5	3.97	7.4	16.4	0.31	12.83	40.6	79	4.39	0.153	0.144	7.2	0.59	3869	2766	179	67	C	G	0.8617	447.2	2.41	519	30.8	439.5	2.37	517	30.9	431.1	2.33	514	31.0	426.1	2.30

Table A115. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N (8/6)	D (8/6)	V/ha (8/6)	Mai (8/6)	N (13/7)	D (13/7)	V/ha (13/7)	Mai (13/7)	N (15/10)	D (15/10)	V/ha (15/10)	Mai (15/10)
		Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		SI = 20 m Initial Density = 10000 stems/ha																																						
5	10	9678	1.6	1.5	2.4	3.3	3.6	0.71	1.5	0.7	0.68	0.40	2.0	175	1.02	0.304	0.285	1.5	0.02	1404	2956	85	38	B	G	0.0002	2.4	0.23	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	8970	3.2	3.0	4.1	5.6	6.1	0.83	2.1	1.7	0.54	0.56	7.4	137	1.06	0.188	0.174	4.1	0.09	2016	2956	160	50	B	G	0.0017	15.6	1.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	8038	4.7	4.4	5.7	7.8	8.5	0.97	2.4	2.9	0.45	0.77	14.1	128	1.12	0.143	0.131	6.5	0.17	2631	2956	223	62	C	G	0.0052	41.9	2.06	266	8.1	3.5	0.17	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	25	7039	6.1	5.8	7.2	9.8	10.8	1.12	2.7	4.1	0.39	1.02	20.7	124	1.19	0.122	0.111	8.4	0.25	3170	2956	269	72	D	G	0.0111	78.0	3.08	1601	8.5	29.1	1.15	6	12.6	0.3	0.01	0	0.0	0.0	0.00
25	30	6086	7.5	7.1	8.7	11.6	12.8	1.26	2.9	5.2	0.35	1.30	26.6	120	1.28	0.110	0.100	9.7	0.33	3602	2956	300	79	D	G	0.0196	119.2	3.93	2841	9.1	73.5	2.42	113	12.9	7.2	0.24	12	14.5	0.9	0.03
30	35	5235	8.7	8.3	10.0	13.2	14.6	1.40	3.1	6.2	0.33	1.62	31.4	117	1.38	0.104	0.095	10.6	0.39	3927	2956	317	85	D	G	0.0308	161.4	4.57	3399	9.9	122.8	3.47	457	13.3	34.1	0.96	106	14.8	8.9	0.25
35	40	4505	10.0	9.5	11.3	14.7	16.2	1.54	3.3	7.2	0.31	1.96	35.2	115	1.49	0.101	0.092	11.2	0.44	4159	2956	325	88	D	G	0.0448	202.0	5.01	3468	10.7	170.0	4.21	931	13.7	80.6	2.00	347	15.1	33.3	0.83
40	45	3891	11.2	10.7	12.4	16.0	17.6	1.67	3.5	8.0	0.30	2.32	38.1	112	1.60	0.100	0.091	11.4	0.48	4317	2956	326	90	D	G	0.0615	239.4	5.28	3296	11.6	212.6	4.69	1346	14.2	134.9	2.97	675	15.6	74.1	1.63
45	50	3380	12.3	11.8	13.5	17.1	18.9	1.80	3.8	8.9	0.29	2.69	40.3	110	1.72	0.100	0.091	11.5	0.51	4417	2956	323	91	D	G	0.0807	272.9	5.42	3029	12.5	250.0	4.96	1616	14.8	187.2	3.72	982	16.0	122.9	2.44
50	55	2956	13.4	12.9	14.4	18.2	20.0	1.93	4.0	9.6	0.29	3.08	41.9	108	1.84	0.101	0.092	11.4	0.53	4474	2956	318	91	D	G	0.1023	302.4	5.46	2744	13.4	282.4	5.10	1745	15.4	232.8	4.21	1209	16.5	172.0	3.11
55	60	2604	14.5	13.9	15.3	19.1	21.0	2.05	4.2	10.3	0.28	3.48	43.0	107	1.96	0.102	0.093	11.3	0.55	4500	2956	310	91	D	G	0.1260	328.0	5.43	2472	14.4	310.2	5.14	1772	16.1	271.1	4.49	1343	17.1	216.5	3.59
60	65	2310	15.5	14.9	16.2	20.0	21.9	2.17	4.4	11.0	0.28	3.89	43.7	105	2.08	0.104	0.095	11.1	0.56	4502	2956	302	90	D	G	0.1515	349.9	5.35	2225	15.3	333.7	5.11	1734	16.8	302.5	4.63	1402	17.7	255.0	3.90
65	70	2065	16.5	15.9	16.9	20.7	22.7	2.28	4.5	11.5	0.28	4.30	44.2	104	2.20	0.106	0.097	10.9	0.57	4489	2956	293	89	D	G	0.1785	368.7	5.24	2009	16.2	353.9	5.03	1661	17.5	328.3	4.67	1407	18.3	287.4	4.09
70	75	1858	17.5	16.8	17.6	21.4	23.4	2.39	4.7	12.1	0.28	4.71	44.5	102	2.32	0.108	0.099	10.6	0.58	4465	2956	285	88	D	G	0.2070	384.6	5.10	1821	17.1	370.8	4.92	1570	18.2	349.3	4.64	1378	18.9	314.3	4.17
75	80	1682	18.4	17.7	18.3	22.1	24.1	2.49	4.9	12.6	0.28	5.12	44.6	101	2.44	0.110	0.101	10.4	0.58	4434	2956	276	86	D	G	0.2365	397.8	4.95	1656	17.9	384.8	4.79	1475	18.9	366.3	4.56	1328	19.5	336.2	4.18
80	85	1533	19.2	18.6	18.8	22.6	24.7	2.59	5.1	13.0	0.28	5.53	44.6	100	2.55	0.113	0.103	10.2	0.59	4398	2956	268	85	D	G	0.2669	409.1	4.79	1515	18.7	396.8	4.65	1381	19.6	380.5	4.46	1268	20.2	354.3	4.15
85	90	1404	20.1	19.4	19.4	23.2	25.2	2.69	5.3	13.4	0.28	5.94	44.5	98	2.67	0.115	0.106	9.9	0.59	4359	2956	260	83	D	G	0.2978	418.1	4.63	1391	19.6	406.5	4.50	1291	20.3	391.7	4.34	1204	20.8	369.0	4.08
90	95	1294	20.9	20.2	19.9	23.7	25.7	2.78	5.4	13.8	0.28	6.35	44.3	97	2.78	0.117	0.108	9.7	0.59	4320	2956	253	82	D	G	0.3292	426.0	4.47	1285	20.3	414.8	4.35	1209	21.0	401.3	4.21	1141	21.4	381.3	4.00
95	100	1198	21.7	21.0	20.4	24.1	26.2	2.87	5.6	14.1	0.28	6.75	44.1	96	2.89	0.120	0.110	9.5	0.59	4280	2956	247	81	D	G	0.3608	432.2	4.31	1191	21.1	421.5	4.20	1133	21.6	408.9	4.07	1079	22.1	391.2	3.90
100	105	1114	22.4	21.7	20.8	24.6	26.6	2.95	5.7	14.4	0.28	7.14	43.9	95	3.00	0.122	0.113	9.3	0.59	4242	2956	240	80	D	G	0.3925	437.3	4.15	1109	21.8	426.9	4.05	1064	22.3	415.1	3.94	1021	22.7	399.3	3.79
105	110	1040	23.1	22.4	21.3	24.9	27.0	3.03	5.9	14.7	0.28	7.53	43.7	94	3.10	0.124	0.115	9.1	0.59	4204	2956	234	78	D	G	0.4241	441.1	4.00	1036	22.5	431.1	3.91	1000	22.9	419.8	3.80	966	23.3	405.6	3.68
110	115	976	23.8	23.1	21.7	25.3	27.4	3.11	6.0	14.9	0.28	7.92	43.4	93	3.20	0.127	0.117	8.9	0.59	4169	2956	229	77	D	G	0.4556	444.7	3.86	973	23.2	434.9	3.77	945	23.5	424.1	3.68	917	23.9	411.3	3.57
115	120	918	24.5	23.8	22.0	25.6	27.7	3.18	6.1	15.1	0.29	8.30	43.2	91	3.30	0.129	0.119	8.7	0.59	4135	2956	223	76	D	G	0.4867	446.8	3.71	916	23.8	437.4	3.63	893	24.2	426.9	3.55	870	24.4	415.2	3.45
120	125	867	25.1	24.4	22.4	26.0	28.0	3.25	6.2	15.3	0.29	8.67	42.9	90	3.40	0.131	0.121	8.6	0.59	4104	2956	218	75	D	G	0.5175	448.7	3.58	865	24.4	439.4	3.51	847	24.7	429.4	3.43	828	25.0	418.6	3.34
125	130	822	25.7	25.0	22.7	26.3	28.3	3.32	6.4	15.5	0.29	9.03	42.7	89	3.49	0.133	0.123	8.4	0.59	4075	2956	214	74	D	G	0.5478	450.3	3.45	821	25.0	441.3	3.39	805	25.3	431.4	3.31	790	25.6	421.6	3.23
130	135	781	26.3	25.6	23.0	26.5	28.6	3.39	6.5	15.6	0.29	9.39	42.5	88	3.58	0.135	0.125	8.3	0.59	4048	2956	210	73	D	G	0.5776	451.1	3.33	780	25.6	442.3	3.27	767	25.9	432.6	3.20	754	26.1	423.5	3.13
135	140	745	26.9	26.2	23.3	26.8	28.8	3.45	6.6	15.7	0.29	9.74	42.3	87	3.66	0.137	0.127	8.2	0.59	4023	2956	206	73	D	G	0.6068	452.1	3.22	744	26.2	443.4	3.16	734	26.4	434.0	3.09	723	26.6	425.5	3.03
140	145	712	27.4	26.7	23.6	27.0	29.1	3.51	6.7	15.9	0.29	10.08	42.1	87	3.75	0.139	0.129	8.0	0.59	4000	2956	202	72	D	G	0.6354	452.4	3.11	712	26.7	443.9	3.05	703	26.9	434.6	2.99	693	27.1	426.7	2.94
145	150	682	28.0	27.2	23.8	27.3	29.3	3.57	6.8	16.0	0.30	10.41	41.9	86	3.83	0.140	0.131	7.9	0.59	3980	2956	199	71	D	G	0.6633	452.4	3.01	682	27.2	444.0	2.95	674	27.4	434.8	2.89	666	27.6	427.4	2.84
150	155	655	28.5	27.7	24.1	27.5	29.5	3.63	6.9	16.0	0.30	10.74	41.7	85	3.91	0.142	0.132	7.8	0.59	3961	2956	196	70	D	G	0.6905	452.3	2.91	655	27.7	444.0	2.86	648	27.9	435.0	2.80	641	28.1	428.0	2.75
155	160	630	29.0	28.2	24.3	27.7	29.7	3.68	7.0	16.1	0.30	11.06	41.5	84	3.98	0.144	0.134	7.7	0.59	3945	2956	193	70	C	G	0.7171	451.8	2.82	630	28.2	443.6	2.77	624	28.4	434.7	2.71	618	28.5	428.1	2.67
160	165	608	29.4	28.7	24.5	27.9	29.9	3.73	7.0	16.2	0.30	11.38	41.4	83	4.06	0.145	0.136	7.6	0.59	3930	2956	190	69	C	G	0.7429	451.7	2.73	608	28.7	443.6	2.68	603	28.8	434.8	2.63	598	29.0	428.6	2.59
165	170	587	29.9	29.1	24.7	28.1	30.1	3.78	7.1	16.2	0.30	11.69	41.2	82	4.13	0.147	0.137	7.5	0.59	3917	2956	188	69	C	G	0.7680	450.8	2.65	587	29.1	442.8	2.60	583	29.3	434.1	2.55	578	29.4	428.2	2.51
170	175	568	30.3	29.6	24.9	28.2	30.2	3.83	7.2	16.3	0.30	11.99	41.1	81	4.20	0.149	0.139	7.5	0.59	3906	2956	185	68	C	G	0.7923	450.0	2.57	568	29.6	442.1	2.52	564	29.7	433.5	2.47	560	29.8	427.8	2.44
175	180	551	30.8	30.0	25.1	28.4	30.4	3.88	7.3	16.3	0.31	12.28	41.0	81	4.26	0.150	0.140	7.4	0.59	3897	2956	183	68	C	G	0.8160	449.6	2.49	551	30.0	441.7	2.45	548	30.1	433.2	2.40	544	30.2	427.8	2.37
180	185	535	31.2	30.4	25.3	28.6	30.5	3.93	7.3	16.3	0.31	12.57	40.9	80	4.32	0.151	0.142	7.3	0.59	3889	2956	181	67	C	G	0.8389	448.8	2.42	535	30.4	441.0	2.38	532	30.5	432.5	2.33	529	30.6	427.4	2.31
		SI = 20 m Initial Density = 15000 stems/ha																																						
5	10	14431	1.4	1.3	2.3	3.3	3.6	0.70	1.4	0.7	0.65	0.38	2.3	193	0.83	0.250	0.233	1.9	0.03	1995	3831	114	55	C	G	0.0002	2.6	0.25	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	13197	2.9	2.7	3.9	5.6	6.1	0.80	1.9	1.7	0.51	0.51	8.7	147	0.87	0.156	0.143	5.1	0.10	2705	3831	207	68	C	G	0.0013	17.3	1.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	11611	4.2	4.0	5.5	7.7	8.5	0.93	2.1	2.8	0.42	0.69	16.4	135	0.93	0.120	0.109	8.0	0.20	3378	3831	283	80	D	G	0.0040	46.1	2.26	109	8.0	1.3	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	25	9969	5.5	5.2	6.9	9.7	10.8	1.05	2.4	3.9	0.37	0.90	23.9	129	1.00	0.103	0.093	10.2	0.30	3934	3831	335	90	D	G	0.0085	84.9	3.35	1334	8.2	21.0	0.83	1	12.5	0.0	0.00	0	0.0	0.0	0.00
25	30	8454	6.8	6.4	8.3	11.5	12.8	1.18	2.6	5.0	0.34	1.15	30.3	125	1.09	0.094	0.085	11.6	0.38	4352	3831	367	97	D	G	0.0152	128.5	4.23	3014	8.7	65.4	2.15	37	12.7	2.3	0.08	2	14.4	0.1	0.00
30	35	7145	7.9	7.5	9.6	13.1	14.6	1.31	2.8	5.9	0.32	1.42	35.4	121	1.18	0.090	0.081	12.6	0.45	4644	3831	382	101	D	G	0.0241	172.4	4.88	3922	9.4	118.0	3.34	251	13.0	17.7	0.50	36	14.6	2.8	0.08
35	40	6053	9.1	8.7	10.8	14.6	16.2	1.44	3.0	6.8	0.30	1.71	39.3	118	1.29	0.088	0.079	13.0	0.50	4836	3831	387	104	D	G	0.0354	214.2	5.31	4181	10.1	169.4	4.20	682	13.4	55.2	1.37	181	14.9	16.5	0.41
40	45	5157	10.2	9.7	11.9	15.8	17.6	1.57	3.2	7.7	0.29	2.03	42.3	115	1.39	0.088	0.079	13.2	0.54	4950	3831	384	104	D	G	0.0489	252.3	5.56	4065	10.9	215.5	4.75	1225	13.8	111.2	2.45	462	15.2	47.2	1.04
45	50	4427	11.3	10.8	12.9	17.0	18.9	1.69	3.4	8.5	0.28	2.36	44.4	113	1.50	0.089	0.080	13.2	0.57	5007	3831	377	104	D	G	0.0646	286.2	5.68	3779	11.7	255.6	5.08	1619	14.2	167.5	3.33	835	15.5	94.4	1.87
50	55	3831	12.3	11.8	13.8	18.0	20.0	1.81	3.6	9.2	0.28	2.70	45.8	111	1.62	0.090	0.081	13.0	0.59	5023	3831	367	103	D	G	0.0825	315.9	5.71	3438	12.5	289.8	5.24	1860	14.8	218.9	3.95	1138	16.0	144.6	2.61
55	60	3343	13.4	12.8	14.7	18.9	21.0	1.92	3.8	9.9	0.28	3.05	46.8	109	1.73	0.091	0.082	12.8	0.60	5011	3831	356	102	D	G	0.1022	341.6	5.66	3097	13.4	318.9	5.28	1964	15.3	262.8	4.35	1354	16.4	193.2	3.20
60	65	2942	14.3	13.8	15.4	19.8	21.9	2.03	4.0	10.5	0.27	3.42	47.4	108	1.84	0.093	0.084	12.5	0.61	4979	3831	345	100	D	G	0.1236	363.5	5.56	2785	14.2	343.4	5.25	1975	15.9	298.9	4.57	1482	16.9	236.7	3.62
65	70	2609	15.3	14.7	16.2	20.5	22.7	2.14	4.2	11.1	0.27	3.78	47.7	106	1.96	0.095	0.086	12.2	0.62	4933	3831	333	99	D	G	0.1465	382.2	5.43	2506	15.1	364.0	5.17	1924	16.6	328.2	4.66	1537	17.5	273.9	3.89
70	75	2331	16.2	15.6	16.8	21.2	23.4	2.24	4.4	11.6	0.27	4.15	47.8	105	2.07	0.098	0.088	11.9	0.62	4879	3831	322	97	D	G	0.1707	397.8	5.28	2263	15.9	381.3	5.06	1842	17.2	351.9	4.67	1541	18.0	304.9	4.05
75	80	2097	17.0	16.4	17.5	21.8	24.1	2.34	4.5	12.1	0.27	4.52	47.8	103	2.18	0.100	0.091	11.6	0.62	4821	3831	311	95	D	G	0.1960	411.0	5.11	2048	16.7	395.6	4.92	1740	17.8	371.0	4.62	1507	18.6	330.5	4.11
80	85	1898	17.9	17.2	18.0	22.4	24.7	2.44	4.7	12.5	0.27	4.90	47.6	102	2.30	0.103	0.093	11.3	0.63	4759	3831	300	93	D	G	0.2223	421.9	4.94	1866	17.5	407.6	4.78	1637	18.5	386.3	4.53	1457	19.2	351.4	4.12
85	90	1729	18.7	18.0	18.6	22.9	25.2	2.53	4.9	12.9	0.27	5.27	47.4	101	2.40	0.105	0.095	11.0	0.62	4697	3831	291	91	D	G	0.2492	430.8	4.77	1705	18.2	417.4	4.62	1535	19.1	398.7	4.41	1394	19.7	368.4	4.08
90	95	1584	19.5	18.8	19.1	23.4	25.7	2.62	5.0	13.3	0.27	5.64	47.1	99	2.51	0.107	0.098	10.7	0.62	4635	3831	281	89	D	G	0.2766	438.1	4.59	1566	19.0	425.4	4.46	1437	19.7	408.7	4.29	1327	20.3	382.2	4.01
95	100	1459	20.2	19.5	19.5	23.8	26.2	2.70	5.2	13.6	0.27	6.00	46.8	98	2.62	0.110	0.100	10.4	0.62	4575	3831	273	88	D	G	0.3043	444.0	4.42	1444	19.7	431.9	4.30	1344	20.4	416.7	4.15	1257	20.9	393.3	3.92
100	105	1350	20.9	20.3	20.0	24.3	26.6	2.78	5.3	13.9	0.27	6.37	46.4	97	2.72	0.112	0.102	10.1	0.62	4517	3831	265	86	D	G	0.3324	448.7	4.26	1339	20.4	437.1	4.15	1262	21.0	423.1	4.02	1192	21.5	402.4	3.82
105	110	1254	21.6	20.9	20.4	24.6	27.0	2.86	5.5	14.2	0.28	6.73	46.0	96	2.82	0.115	0.105	9.9	0.62	4462	3831	257	84	D	G	0.3608	452.4	4.10	1247	21.0	441.2	4.00	1185	21.6	428.1	3.88	1130	22.0	409.6	3.71
110	115	1170	22.3	21.6	20.8	25.0	27.4	2.94	5.6	14.4	0.28	7.08	45.7	95	2.92	0.117	0.107	9.7	0.61	4409	3831	250	83	D	G	0.3891	455.2	3.95	1162	21.7	444.4	3.85	1114	22.2	432.0	3.74	1068	22.6	415.4	3.60
115	120	1097	22.9	22.2	21.1	25.3	27.7	3.01	5.7	14.7	0.28	7.43	45.3	94	3.02	0.119	0.109	9.5	0.61	4360	3831	244	81	D	G	0.4169	457.3	3.80	1092	22.3	446.8	3.71	1053	22.8	435.0	3.61	1015	23.1	420.0	3.49
120	125	1031	23.6	22.9	21.4	25.6	28.0	3.08	5.9	14.9	0.28	7.78	44.9	93	3.11	0.121	0.111	9.3	0.61	4313	3831	238	80	D	G	0.4449	458.7	3.66	1026	22.9	448.6	3.58	994	23.3	437.3	3.49	964	23.7	423.6	3.38
125	130	973	24.2	23.5	21.8	25.9	28.3	3.15	6.0	15.0	0.28	8.12	44.6	92	3.21	0.124	0.113	9.1	0.61	4269	3831	232	79	D	G	0.4724	459.6	3.53	970	23.5	449.8	3.45	944	23.9	438.9	3.37	918	24.2	426.4	3.27
130	135	921	24.7	24.0	22.1	26.2	28.6	3.21	6.1	15.2	0.28	8.45	44.3	91	3.30	0.126	0.115	8.9	0.61	4229	3831	227	78	D	G	0.4996	460.1	3.40	917	24.1	450.5	3.33	896	24.4	439.9	3.25	875	24.7	428.5	3.17
135	140	874	25.3	24.6	22.3	26.5	28.8	3.27	6.2	15.3	0.29	8.78	43.9	90	3.38	0.128	0.117	8.7	0.60	4191	3831	222	77	D	G	0.5265	460.2	3.28	873	24.6	450.8	3.21	855	24.9	440.6	3.14	836	25.2	429.9	3.06
140	145	832	25.8	25.1	22.6	26.7	29.1	3.33	6.3	15.5	0.29	9.10	43.6	89	3.47	0.130	0.119	8.6	0.60	4156	3831	218	76	D	G	0.5529	460.0	3.16	829	25.2	450.8	3.10	813	25.4	440.8	3.03	798	25.7	431.0	2.97
145	150	794	26.4	25.6	22.9	26.9	29.3	3.39	6.4	15.6	0.29	9.42	43.3	88	3.55	0.132	0.121	8.4	0.60	4124	3831	214	75	D	G	0.5788	459.6	3.06	791	25.7	450.5	3.00	778	25.9	440.7	2.93	765	26.1	431.6	2.87
150	155	759	26.9	26.1	23.1	27.1	29.5	3.45	6.5	15.7	0.29	9.73	43.1	87	3.63	0.134	0.123	8.3	0.60	4094	3831	210	74	D	G	0.6046	458.9	2.95	758	26.2	450.0	2.90	746	26.4	440.4	2.83	734	26.6	431.8	2.78
155	160	728	27.4	26.6	23.3	27.3	29.7	3.50	6.6	15.8	0.29	10.04	42.8	86	3.71	0.136	0.125	8.2	0.60	4067	3831	206	73	D	G	0.6293	458.1	2.86	726	26.7	449.4	2.80	716	26.9	439.9	2.74	706	27.1	431.8	2.69
160	165	699	27.8	27.1	23.5	27.5	29.9	3.56	6.7	15.8	0.30	10.34	42.6	85	3.78	0.137	0.127	8.1	0.60	4042	3831	203	72	D	G	0.6539	457.1	2.76	698	27.1	448.5	2.71	690	27.3	439.2	2.66	681	27.5	431.6	2.61
165	170	673	28.3	27.5	23.8	27.7	30.1	3.61	6.8	15.9	0.30	10.64	42.3	84	3.85	0.139	0.128	8.0	0.59	4019	3831	200	72	D	G	0.6776	456.0	2.68	671	27.6	447.6	2.63	664	27.8	438.4	2.57	657	27.9	431.2	2.53
170	175	649	28.7	28.0	23.9	27.9	30.2	3.66	6.9	15.9	0.30	10.93	42.1	83	3.93	0.141	0.130	7.9	0.59	3999	3831	197	71	D	G	0.7008	454.8	2.59	648	28.0	446.5	2.55	641	28.2	437.4	2.49	634	28.4	430.6	2.46
175	180	627	29.2	28.4	24.1	28.1	30.4	3.70	7.0	16.0	0.30	11.21	41.9	83	3.99	0.142	0.131	7.8	0.59	3980	3831	194	70	D	G	0.7234	453.6	2.52	624	28.4	445.3	2.47	619	28.6	436.4	2.42	612	28.8	430.0	2.38
180	185	607	29.6	28.8	24.3	28.2	30.5	3.75	7.0	16.0	0.30	11.49	41.8	82	4.06	0.144	0.133	7.7	0.59	3964	3831	192	70	C	G	0.7451	452.3	2.44	604	28.9	444.1	2.40	599	29.0	435.3	2.35	594	29.1	429.2	2.32

Table A116. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 20 m Initial Density = 20000 stems/ha																																								
5	10	19159	1.3	1.2	2.3	3.3	3.6	0.69	1.3	0.7	0.63	0.38	2.5	207	0.72	0.218	0.202	2.2	0.03	2565	4622	141	72	D	G	0.0001	2.8	0.27	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	17347	2.7	2.5	3.8	5.6	6.1	0.79	1.7	1.7	0.49	0.49	9.6	154	0.76	0.137	0.125	5.9	0.12	3342	4622	249	85	D	G	0.0011	18.5	1.20	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	15062	3.9	3.7	5.3	7.7	8.5	0.90	2.0	2.8	0.41	0.64	18.1	140	0.81	0.106	0.096	9.2	0.23	4041	4622	334	97	D	G	0.0032	48.9	2.40	43	7.9	0.5	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	25	12751	5.1	4.8	6.7	9.7	10.8	1.01	2.2	3.8	0.36	0.83	26.2	133	0.89	0.091	0.082	11.6	0.33	4587	4622	390	106	D	G	0.0070	89.4	3.53	1012	8.1	14.6	0.58	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	30	10671	6.3	5.9	8.0	11.5	12.8	1.13	2.4	4.8	0.33	1.05	33.0	128	0.97	0.084	0.076	13.2	0.42	4974	4622	421	112	D	G	0.0126	134.2	4.42	2895	8.5	56.1	1.85	12	12.6	0.7	0.02	0	0.0	0.0	0.00
30	35	8913	7.4	7.0	9.3	13.0	14.6	1.25	2.6	5.7	0.31	1.29	38.3	124	1.06	0.081	0.073	14.1	0.49	5226	4622	435	115	D	G	0.0201	179.0	5.06	4159	9.0	110.1	3.11	136	12.9	9.2	0.26	12	14.5	0.9	0.03
35	40	7474	8.5	8.1	10.4	14.5	16.2	1.37	2.8	6.6	0.29	1.55	42.3	120	1.16	0.080	0.071	14.5	0.54	5374	4622	436	116	D	G	0.0296	221.1	5.48	4661	9.7	164.3	4.07	485	13.2	37.4	0.93	94	14.7	8.2	0.20
40	45	6312	9.6	9.1	11.4	15.7	17.6	1.49	3.0	7.4	0.28	1.84	45.2	118	1.26	0.080	0.071	14.6	0.58	5447	4622	430	116	D	G	0.0411	259.4	5.72	4648	10.4	213.2	4.70	1034	13.5	88.2	1.94	309	15.0	30.0	0.66
45	50	5377	10.6	10.1	12.4	16.8	18.9	1.61	3.2	8.1	0.28	2.14	47.3	115	1.36	0.081	0.072	14.5	0.61	5466	4622	420	115	D	G	0.0546	293.4	5.83	4377	11.1	255.4	5.07	1505	13.9	144.9	2.88	660	15.3	70.2	1.39
50	55	4622	11.6	11.1	13.3	17.9	20.0	1.72	3.4	8.8	0.27	2.45	48.6	113	1.47	0.082	0.074	14.3	0.63	5447	4622	407	113	D	G	0.0699	323.0	5.84	4011	11.9	291.2	5.26	1844	14.4	199.9	3.61	998	15.6	118.1	2.13
55	60	4010	12.5	12.0	14.1	18.8	21.0	1.83	3.6	9.5	0.27	2.77	49.5	111	1.58	0.084	0.075	14.0	0.64	5403	4622	393	111	D	G	0.0869	348.6	5.78	3627	12.7	321.3	5.32	2034	14.9	248.1	4.11	1277	16.0	167.8	2.78
60	65	3510	13.5	12.9	14.9	19.6	21.9	1.94	3.7	10.1	0.27	3.10	50.0	109	1.69	0.086	0.077	13.6	0.65	5342	4622	379	109	D	G	0.1055	370.4	5.67	3263	13.5	346.6	5.30	2104	15.4	288.3	4.41	1466	16.5	214.3	3.28
65	70	3097	14.4	13.8	15.6	20.3	22.7	2.04	3.9	10.7	0.27	3.43	50.2	108	1.80	0.088	0.079	13.2	0.65	5271	4622	365	106	D	G	0.1256	388.9	5.53	2935	14.3	367.7	5.23	2091	16.0	321.1	4.56	1574	17.0	255.2	3.63
70	75	2755	15.2	14.7	16.2	21.0	23.4	2.14	4.1	11.2	0.27	3.77	50.2	106	1.91	0.091	0.081	12.9	0.66	5194	4622	351	104	D	G	0.1468	404.4	5.37	2645	15.0	385.3	5.11	2028	16.5	347.5	4.61	1617	17.5	289.8	3.85
75	80	2468	16.1	15.5	16.8	21.6	24.1	2.23	4.3	11.7	0.27	4.11	50.1	105	2.01	0.093	0.084	12.5	0.66	5114	4622	338	102	D	G	0.1691	417.4	5.19	2393	15.8	399.9	4.98	1937	17.1	368.6	4.59	1613	18.0	318.6	3.96
80	85	2226	16.9	16.3	17.4	22.2	24.7	2.32	4.4	12.1	0.27	4.46	49.8	104	2.12	0.096	0.086	12.1	0.65	5033	4622	326	99	D	G	0.1924	428.2	5.02	2173	16.5	412.0	4.83	1833	17.7	385.6	4.52	1579	18.5	342.2	4.01
85	90	2020	17.7	17.0	17.9	22.7	25.2	2.41	4.6	12.5	0.27	4.80	49.5	102	2.22	0.098	0.088	11.8	0.65	4953	4622	315	97	D	G	0.2163	437.0	4.84	1981	17.3	421.9	4.67	1726	18.3	399.2	4.42	1527	19.0	361.5	4.00
90	95	1844	18.4	17.8	18.4	23.2	25.7	2.50	4.8	12.9	0.27	5.14	49.1	101	2.33	0.100	0.090	11.4	0.65	4875	4622	304	95	D	G	0.2409	444.2	4.66	1814	18.0	430.0	4.51	1621	18.9	410.0	4.30	1463	19.5	377.1	3.95
95	100	1692	19.1	18.5	18.8	23.6	26.2	2.58	4.9	13.2	0.27	5.48	48.6	100	2.43	0.103	0.093	11.1	0.64	4800	4622	294	93	D	G	0.2659	449.9	4.48	1670	18.7	436.5	4.35	1520	19.5	418.6	4.17	1395	20.1	389.7	3.88
100	105	1560	19.8	19.2	19.3	24.0	26.6	2.66	5.1	13.5	0.27	5.82	48.2	99	2.53	0.105	0.095	10.8	0.64	4727	4622	285	91	D	G	0.2913	454.4	4.31	1542	19.3	441.7	4.19	1426	20.1	425.4	4.04	1326	20.6	399.9	3.80
105	110	1445	20.5	19.8	19.7	24.4	27.0	2.74	5.2	13.8	0.27	6.16	47.7	98	2.63	0.108	0.097	10.5	0.64	4658	4622	276	89	D	G	0.3169	457.9	4.15	1434	20.0	445.7	4.04	1342	20.6	430.7	3.90	1260	21.1	408.0	3.70
110	115	1344	21.2	20.5	20.0	24.8	27.4	2.81	5.3	14.0	0.27	6.49	47.3	97	2.73	0.110	0.100	10.3	0.63	4593	4622	268	87	D	G	0.3426	460.5	3.99	1333	20.6	448.8	3.89	1260	21.2	434.8	3.77	1194	21.7	414.5	3.59
115	120	1256	21.8	21.1	20.4	25.1	27.7	2.88	5.5	14.3	0.27	6.82	46.8	96	2.82	0.112	0.102	10.0	0.63	4532	4622	260	86	D	G	0.3681	462.3	3.84	1249	21.2	451.1	3.75	1190	21.7	437.9	3.64	1136	22.2	419.7	3.49
120	125	1177	22.4	21.7	20.7	25.4	28.0	2.95	5.6	14.5	0.28	7.14	46.4	94	2.91	0.115	0.104	9.8	0.62	4474	4622	254	84	D	G	0.3938	463.5	3.70	1173	21.8	452.6	3.61	1124	22.3	440.2	3.51	1080	22.7	423.6	3.38
125	130	1107	23.0	22.3	21.0	25.7	28.3	3.01	5.7	14.7	0.28	7.46	46.0	93	3.01	0.117	0.106	9.6	0.62	4419	4622	247	83	D	G	0.4193	464.2	3.56	1103	22.4	453.6	3.48	1064	22.8	441.8	3.39	1026	23.2	426.7	3.27
130	135	1045	23.6	22.9	21.3	26.0	28.6	3.08	5.8	14.8	0.28	7.78	45.5	92	3.09	0.119	0.108	9.4	0.62	4368	4622	241	81	D	G	0.4444	464.4	3.43	1039	22.9	454.2	3.36	1007	23.3	442.7	3.27	976	23.7	428.9	3.17
135	140	989	24.1	23.4	21.6	26.2	28.8	3.14	6.0	15.0	0.28	8.09	45.2	91	3.18	0.121	0.110	9.2	0.61	4321	4622	236	80	D	G	0.4695	464.3	3.31	986	23.5	454.3	3.24	959	23.8	443.2	3.16	933	24.1	430.5	3.07
140	145	938	24.6	23.9	21.8	26.4	29.1	3.20	6.1	15.1	0.28	8.40	44.8	90	3.27	0.123	0.112	9.0	0.61	4277	4622	230	79	D	G	0.4945	463.8	3.19	935	24.0	454.0	3.12	912	24.3	443.3	3.05	891	24.6	431.6	2.97
145	150	893	25.2	24.4	22.1	26.7	29.3	3.26	6.2	15.2	0.29	8.70	44.4	90	3.35	0.125	0.114	8.9	0.61	4236	4622	226	78	D	G	0.5185	463.0	3.08	893	24.5	453.5	3.02	873	24.8	443.0	2.95	855	25.1	432.2	2.87
150	155	852	25.7	24.9	22.3	26.9	29.5	3.31	6.3	15.3	0.29	9.00	44.1	89	3.43	0.127	0.116	8.7	0.60	4198	4622	221	77	D	G	0.5424	462.1	2.97	849	25.0	452.7	2.91	832	25.3	442.5	2.85	816	25.5	432.4	2.78
155	160	814	26.2	25.4	22.5	27.1	29.7	3.37	6.4	15.4	0.29	9.29	43.8	88	3.50	0.129	0.118	8.6	0.60	4163	4622	217	76	D	G	0.5662	460.9	2.87	811	25.5	451.8	2.82	797	25.7	441.8	2.76	783	26.0	432.3	2.70
160	165	780	26.6	25.9	22.8	27.3	29.9	3.42	6.5	15.5	0.29	9.58	43.5	87	3.58	0.131	0.120	8.4	0.60	4130	4622	213	75	D	G	0.5892	459.6	2.78	777	25.9	450.7	2.73	765	26.2	440.9	2.67	752	26.4	432.0	2.61
165	170	749	27.1	26.3	23.0	27.4	30.1	3.47	6.5	15.6	0.29	9.86	43.2	86	3.65	0.133	0.122	8.3	0.60	4100	4622	209	74	D	G	0.6117	458.2	2.69	748	26.4	449.4	2.64	737	26.6	439.8	2.58	726	26.8	431.5	2.53
170	175	721	27.5	26.8	23.1	27.6	30.2	3.52	6.6	15.6	0.30	10.14	42.9	85	3.72	0.135	0.123	8.2	0.60	4073	4622	206	73	D	G	0.6336	456.8	2.61	718	26.8	448.1	2.56	708	27.0	438.6	2.50	699	27.2	430.7	2.46
175	180	695	28.0	27.2	23.3	27.8	30.4	3.57	6.7	15.7	0.30	10.42	42.7	84	3.79	0.137	0.125	8.1	0.59	4048	4622	203	72	D	G	0.6550	455.2	2.52	694	27.2	446.6	2.48	686	27.4	437.3	2.42	677	27.6	429.9	2.38
180	185	671	28.4	27.6	23.5	27.9	30.5	3.61	6.8	15.7	0.30	10.69	42.4	83	3.86	0.138	0.126	8.0	0.59	4025	4622	200	72	D	G	0.6760	453.6	2.45	670	27.6	445.1	2.40	663	27.8	436.0	2.35	656	28.0	428.9	2.31
SI = 20 m Initial Density = 30000 stems/ha																																								
5	10	28557	1.1	1.0	2.2	3.3	3.6	0.68	1.2	0.8	0.61	0.37	2.7	231	0.59	0.179	0.166	2.6	0.04	3667	6056	189	105	D	G	0.0001	3.0	0.29	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	25484	2.3	2.2	3.6	5.5	6.1	0.76	1.5	1.7	0.47	0.46	11.0	165	0.63	0.113	0.103	7.2	0.14	4520	6056	321	117	D	G	0.0008	20.0	1.30	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	21715	3.5	3.3	5.0	7.7	8.5	0.86	1.8	2.7	0.39	0.59	20.7	148	0.68	0.089	0.080	11.1	0.26	5214	6056	420	127	D	G	0.0024	52.4	2.57	6	7.8	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	25	18029	4.6	4.3	6.3	9.6	10.8	0.96	2.0	3.6	0.34	0.74	29.6	139	0.74	0.078	0.069	13.8	0.38	5700	6056	480	134	D	G	0.0052	94.6	3.73	521	7.9	6.7	0.26	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	30	14820	5.6	5.3	7.6	11.4	12.8	1.07	2.1	4.6	0.31	0.92	36.8	133	0.82	0.072	0.064	15.5	0.48	6001	6056	510	137	D	G	0.0095	140.4	4.63	2369	8.2	39.4	1.30	1	12.5	0.1	0.00	0	0.0	0.0	0.00
30	35	12186	6.7	6.3	8.7	12.9	14.6	1.17	2.3	5.4	0.30	1.13	42.4	128	0.91	0.070	0.062	16.4	0.55	6162	6056	519	137	D	G	0.0152	185.6	5.25	4139	8.6	91.7	2.59	37	12.7	2.4	0.07	1	14.3	0.1	0.00
35	40	10083	7.7	7.3	9.8	14.3	16.2	1.28	2.5	6.2	0.28	1.35	46.4	124	1.00	0.070	0.062	16.8	0.60	6223	6056	515	136	D	G	0.0226	227.6	5.64	5132	9.2	148.7	3.68	226	12.9	16.4	0.41	24	14.5	2.0	0.05
40	45	8420	8.6	8.2	10.8	15.5	17.6	1.39	2.7	6.9	0.28	1.59	49.3	121	1.09	0.070	0.062	16.8	0.64	6217	6056	503	134	D	G	0.0315	265.4	5.85	5412	9.8	201.3	4.44	669	13.1	52.9	1.17	128	14.8	11.7	0.26
45	50	7104	9.6	9.1	11.7	16.7	18.9	1.50	2.9	7.6	0.27	1.85	51.2	118	1.19	0.071	0.063	16.6	0.67	6167	6056	487	131	D	G	0.0421	298.8	5.93	5261	10.4	246.7	4.90	1181	13.5	103.5	2.06	381	14.9	37.3	0.74
50	55	6056	10.5	10.0	12.5	17.6	20.0	1.60	3.1	8.3	0.27	2.11	52.5	116	1.29	0.073	0.064	16.2	0.68	6088	6056	469	128	D	G	0.0541	327.9	5.92	4909	11.1	285.0	5.15	1640	13.9	159.2	2.88	702	15.2	75.6	1.37
55	60	5215	11.4	10.9	13.3	18.5	21.0	1.70	3.2	8.9	0.26	2.39	53.2	114	1.38	0.075	0.066	15.8	0.69	5990	6056	450	125	D	G	0.0677	352.9	5.85	4487	11.8	316.9	5.25	1971	14.3	212.2	3.52	1030	15.6	121.6	2.01
60	65	4535	12.3	11.7	14.0	19.3	21.9	1.80	3.4	9.5	0.26	2.67	53.5	112	1.48	0.077	0.068	15.3	0.70	5883	6056	431	121	D	G	0.0825	374.2	5.73	4060	12.5	343.4	5.25	2163	14.7	258.4	3.95	1305	15.9	169.1	2.59
65	70	3978	13.1	12.6	14.6	20.1	22.7	1.89	3.6	10.0	0.26	2.96	53.6	110	1.59	0.079	0.070	14.8	0.70	5771	6056	413	118	D	G	0.0986	392.3	5.58	3663	13.2	365.4	5.19	2244	15.2	296.9	4.22	1504	16.3	213.6	3.04
70	75	3519	13.9	13.4	15.3	20.7	23.4	1.99	3.8	10.5	0.26	3.26	53.4	109	1.69	0.081	0.072	14.3	0.70	5656	6056	396	115	D	G	0.1158	407.6	5.41	3304	13.8	383.7	5.09	2243	15.7	328.2	4.36	1626	16.7	253.1	3.36
75	80	3136	14.7	14.1	15.8	21.3	24.1	2.07	3.9	11.0	0.26	3.55	53.1	107	1.79	0.084	0.074	13.9	0.70	5543	6056	380	111	D	G	0.1340	420.3	5.23	2988	14.5	398.8	4.96	2191	16.2	353.4	4.40	1688	17.1	286.8	3.57
80	85	2814	15.4	14.9	16.3	21.9	24.7	2.16	4.1	11.4	0.26	3.85	52.7	106	1.89	0.086	0.076	13.4	0.69	5432	6056	365	108	D	G	0.1531	430.8	5.05	2710	15.2	411.2	4.82	2108	16.7	373.6	4.38	1701	17.6	315.1	3.69
85	90	2542	16.2	15.6	16.8	22.4	25.2	2.24	4.2	11.8	0.26	4.16	52.2	105	1.98	0.089	0.079	13.0	0.69	5325	6056	351	106	D	G	0.1729	439.4	4.86	2463	15.9	421.3	4.66	2008	17.2	389.6	4.31	1681	18.0	338.4	3.75
90	95	2310	16.9	16.3	17.3	22.9	25.7	2.32	4.4	12.2	0.26	4.46	51.7	103	2.08	0.091	0.081	12.6	0.68	5221	6056	338	103	D	G	0.1932	446.4	4.68	2252	16.5	429.6	4.51	1901	17.7	402.4	4.22	1638	18.5	357.5	3.75
95	100	2110	17.6	16.9	17.7	23.3	26.2	2.40	4.5	12.5	0.26	4.76	51.1	102	2.18	0.094	0.083	12.2	0.67	5123	6056	326	100	D	G	0.2142	451.9	4.50	2067	17.2	436.2	4.35	1795	18.2	412.5	4.11	1582	19.0	373.1	3.72
100	105	1938	18.2	17.6	18.1	23.7	26.6	2.48	4.7	12.8	0.27	5.06	50.6	101	2.27	0.096	0.085	11.8	0.67	5029	6056	315	98	D	G	0.2354	456.3	4.33	1902	17.8	441.5	4.19	1689	18.8	420.4	3.99	1516	19.4	385.6	3.66
105	110	1787	18.9	18.2	18.5	24.0	27.0	2.55	4.8	13.1	0.27	5.36	50.0	100	2.37	0.098	0.088	11.5	0.66	4940	6056	305	96	D	G	0.2572	459.6	4.16	1760	18.4	445.6	4.04	1591	19.3	426.6	3.87	1450	19.9	395.8	3.59
110	115	1656	19.5	18.8	18.9	24.4	27.4	2.62	5.0	13.4	0.27	5.65	49.4	99	2.46	0.101	0.090	11.2	0.66	4856	6056	295	94	D	G	0.2790	462.0	4.01	1637	19.0	448.6	3.89	1501	19.8	431.4	3.74	1385	20.4	403.9	3.50
115	120	1540	20.1	19.4	19.2	24.7	27.7	2.69	5.1	13.6	0.27	5.95	48.8	98	2.55	0.103	0.092	10.9	0.65	4776	6056	286	92	D	G	0.3010	463.6	3.85	1526	19.6	450.9	3.75	1416	20.3	434.9	3.61	1322	20.8	410.3	3.41
120	125	1438	20.7	20.0	19.5	25.0	28.0	2.75	5.2	13.8	0.27	6.24	48.3	97	2.64	0.105	0.094	10.6	0.64	4702	6056	278	90	D	G	0.3231	464.6	3.71	1426	20.1	452.4	3.61	1337	20.8	437.5	3.49	1258	21.3	415.3	3.31
125	130	1347	21.2	20.6	19.8	25.3	28.3	2.82	5.3	14.0	0.27	6.53	47.8	96	2.72	0.108	0.096	10.4	0.64	4632	6056	270	88	D	G	0.3452	465.0	3.57	1336	20.7	453.2	3.48	1263	21.3	439.3	3.37	1197	21.7	419.2	3.22
130	135	1267	21.8	21.1	20.1	25.6	28.6	2.88	5.5	14.2	0.28	6.81	47.2	95	2.81	0.110	0.098	10.1	0.63	4566	6056	263	86	D	G	0.3670	465.0	3.44	1257	21.2	453.6	3.35	1197	21.8	440.4	3.25	1142	22.2	422.1	3.12
135	140	1194	22.3	21.6	20.3	25.8	28.8	2.94	5.6	14.3	0.28	7.10	46.7	94	2.89	0.112	0.100	9.9	0.63	4504	6056	256	85	D	G	0.3891	464.6	3.31	1189	21.7	453.6	3.23	1139	22.2	441.0	3.14	1091	22.6	424.2	3.02
140	145	1129	22.8	22.1	20.6	26.0	29.1	3.00	5.7	14.5	0.28	7.38	46.3	93	2.98	0.114	0.102	9.7	0.62	4447	6056	250	83	D	G	0.4108	463.8	3.19	1121	22.2	453.1	3.12	1077	22.7	441.0	3.03	1039	23.1	425.7	2.93
145	150	1071	23.3	22.6	20.8	26.3	29.3	3.05	5.8	14.6	0.28	7.65	45.8	92	3.06	0.116	0.104	9.5	0.62	4393	6056	244	82	D	G	0.4321	462.8	3.08	1065	22.7	452.4	3.01	1028	23.2	440.7	2.93	995	23.5	426.6	2.84
150	155	1017	23.8	23.1	21.0	26.5	29.5	3.11	5.9	14.7	0.28	7.93	45.4	91	3.14	0.119	0.106	9.3	0.61	4343	6056	238	81	D	G	0.4538	461.5	2.97	1015	23.2	451.4	2.91	982	23.6	440.1	2.83	952	23.9	426.9	2.75
155	160	969	24.3	23.6	21.3	26.7	29.7	3.16	6.0	14.8	0.28	8.20	45.0	90	3.21	0.121	0.108	9.1	0.61	4296	6056	233	79	D	G	0.4748	460.1	2.87	966	23.6	450.2	2.81	939	24.0	439.2	2.74	912	24.3	427.0	2.66
160	165	926	24.8	24.0	21.5	26.8	29.9	3.21	6.1	14.9	0.29	8.46	44.6	89	3.29	0.122	0.110	9.0	0.60	4252	6056	229	78	D	G	0.4951	458.5	2.77	922	24.1	448.8	2.71	899	24.4	438.2	2.65	877	24.7	426.7	2.58
165	170	886	25.2	24.5	21.7	27.0	30.1	3.26	6.2	15.0	0.29	8.73	44.2	88	3.36	0.124	0.112	8.8	0.60	4211	6056	224	77	D	G	0.5155	456.7	2.68	883	24.5	447.3	2.63	863	24.9	436.9	2.56	843	25.1	426.2	2.50
170	175	849	25.7	24.9	21.8	27.2	30.2	3.31	6.3	15.1	0.29	8.99	43.9	88	3.43	0.126	0.114	8.7	0.60	4174	6056	220	76	D	G	0.5358	454.9	2.59	848	25.0	445.6	2.54	830	25.3	435.5	2.48	812	25.5	425.5	2.43
175	180	816	26.1	25.3	22.0	27.3	30.4	3.36	6.3	15.1	0.29	9.24	43.6	87	3.50	0.128	0.115	8.5	0.59	4139	6056	216	75	D	G	0.5551	453.0	2.51	813	25.4	443.9	2.46	797	25.7	434.0	2.41	782	25.9	424.5	2.35
180	185	785	26.5	25.7	22.2	27.5	30.5	3.40	6.4	15.2	0.29	9.49	43.3	86	3.57	0.130	0.117	8.4	0.59	4106	6056	212	74	D	G	0.5745	451.0	2.43	786	25.8	442.1	2.39	772	26.0	432.4	2.33	758	26.3	423.4	2.28

Table A117. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																										
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai
SI = 20 m Initial Density = 50000 stems/ha																												
5	10	47205	0.9	0.8	2.1	3.3	3.6	0.67	1.1	0.8	0.57	0.36	3.0	270	0.46	0.140	0.129	3.2	0.05	5782	8594	274	168	D	G	0.0001	3.1	0.30
10	15	41342	2.0	1.8	3.4	5.5	6.1	0.73	1.3	1.6	0.44	0.43	12.8	181	0.49	0.090	0.081	9.1	0.17	6660	8594	442	176	D	G	0.0005	21.4	1.39
15	20	34399	3.0	2.8	4.6	7.6	8.5	0.81	1.5	2.5	0.37	0.52	23.9	159	0.54	0.071	0.063	13.8	0.32	7226	8594	557	180	D	G	0.0016	55.4	2.72
20	25	27889	3.9	3.7	5.8	9.5	10.8	0.90	1.7	3.4	0.32	0.64	33.7	147	0.60	0.063	0.056	17.0	0.45	7513	8594	620	180	D	G	0.0035	98.5	3.88
25	30	22443	4.9	4.6	7.0	11.2	12.8	0.99	1.8	4.2	0.30	0.79	41.5	139	0.67	0.059	0.052	18.8	0.55	7602	8594	643	176	D	G	0.0064	144.1	4.75
30	35	18127	5.8	5.4	8.0	12.8	14.6	1.08	2.0	4.9	0.29	0.95	47.2	133	0.74	0.058	0.051	19.7	0.62	7568	8594	643	172	D	G	0.0104	188.0	5.32
35	40	14776	6.6	6.3	9.0	14.1	16.2	1.17	2.2	5.6	0.28	1.12	51.2	128	0.82	0.058	0.051	19.9	0.67	7460	8594	628	166	D	G	0.0155	228.3	5.66
40	45	12185	7.5	7.1	9.8	15.3	17.6	1.27	2.3	6.3	0.27	1.31	53.9	125	0.91	0.059	0.051	19.7	0.71	7311	8594	606	160	D	G	0.0217	264.1	5.82
45	50	10172	8.3	7.9	10.6	16.4	18.9	1.36	2.5	6.9	0.26	1.52	55.7	121	0.99	0.060	0.053	19.3	0.73	7140	8594	581	154	D	G	0.0291	295.6	5.87
50	55	8594	9.2	8.7	11.4	17.4	20.0	1.45	2.7	7.5	0.26	1.73	56.7	119	1.08	0.062	0.054	18.7	0.74	6959	8594	555	149	D	G	0.0376	322.8	5.83
55	60	7343	10.0	9.5	12.1	18.2	21.0	1.54	2.8	8.0	0.26	1.95	57.2	116	1.17	0.064	0.056	18.1	0.75	6776	8594	529	143	D	G	0.0472	346.3	5.74
60	65	6339	10.7	10.3	12.7	19.0	21.9	1.63	3.0	8.5	0.26	2.18	57.3	114	1.26	0.066	0.057	17.5	0.75	6595	8594	504	138	D	G	0.0578	366.3	5.60
65	70	5526	11.5	11.0	13.3	19.7	22.7	1.71	3.2	9.0	0.26	2.41	57.2	113	1.35	0.068	0.059	16.9	0.75	6419	8594	481	133	D	G	0.0694	383.3	5.45
70	75	4859	12.2	11.7	13.9	20.3	23.4	1.79	3.3	9.5	0.26	2.65	56.8	111	1.43	0.071	0.061	16.3	0.74	6249	8594	459	129	D	G	0.0818	397.6	5.28
75	80	4306	12.9	12.4	14.4	20.9	24.1	1.87	3.5	9.9	0.26	2.89	56.3	110	1.52	0.073	0.063	15.7	0.74	6087	8594	438	125	D	G	0.0951	409.6	5.10
80	85	3844	13.6	13.0	14.8	21.5	24.7	1.95	3.6	10.3	0.26	3.14	55.7	108	1.61	0.075	0.065	15.1	0.73	5932	8594	419	121	D	G	0.1091	419.5	4.91
85	90	3455	14.2	13.7	15.3	21.9	25.2	2.02	3.8	10.7	0.26	3.38	55.1	107	1.70	0.078	0.067	14.6	0.72	5786	8594	402	117	D	G	0.1238	427.7	4.73
90	95	3124	14.9	14.3	15.7	22.4	25.7	2.10	3.9	11.0	0.26	3.63	54.4	106	1.79	0.080	0.069	14.1	0.71	5647	8594	386	113	D	G	0.1390	434.3	4.55
95	100	2840	15.5	14.9	16.1	22.8	26.2	2.17	4.1	11.4	0.26	3.88	53.6	105	1.88	0.082	0.072	13.6	0.70	5516	8594	371	110	D	G	0.1548	439.6	4.38
100	105	2596	16.1	15.5	16.5	23.2	26.6	2.24	4.2	11.7	0.26	4.13	52.9	104	1.96	0.085	0.074	13.2	0.69	5393	8594	357	107	D	G	0.1710	443.8	4.21
105	110	2384	16.7	16.1	16.8	23.5	27.0	2.30	4.3	11.9	0.26	4.38	52.2	103	2.05	0.087	0.076	12.8	0.69	5277	8594	344	104	D	G	0.1875	446.9	4.05
110	115	2198	17.3	16.6	17.1	23.9	27.4	2.37	4.5	12.2	0.27	4.62	51.5	102	2.13	0.089	0.078	12.4	0.68	5167	8594	332	102	D	G	0.2044	449.2	3.89
115	120	2036	17.8	17.2	17.4	24.2	27.7	2.43	4.6	12.5	0.27	4.87	50.8	101	2.22	0.092	0.080	12.0	0.67	5065	8594	321	99	D	G	0.2214	450.8	3.75
120	125	1892	18.4	17.7	17.7	24.5	28.0	2.49	4.7	12.7	0.27	5.12	50.1	100	2.30	0.094	0.082	11.7	0.66	4968	8594	310	97	D	G	0.2387	451.6	3.60
125	130	1765	18.9	18.2	18.0	24.7	28.3	2.55	4.8	12.9	0.27	5.36	49.4	99	2.38	0.096	0.084	11.4	0.65	4877	8594	301	95	D	G	0.2561	452.0	3.47
130	135	1652	19.4	18.7	18.2	25.0	28.6	2.61	4.9	13.1	0.27	5.60	48.8	98	2.46	0.098	0.086	11.1	0.64	4792	8594	292	93	D	G	0.2735	451.9	3.34
135	140	1551	19.9	19.2	18.5	25.2	28.8	2.66	5.1	13.2	0.27	5.84	48.2	97	2.54	0.101	0.088	10.8	0.64	4712	8594	284	91	D	G	0.2910	451.4	3.22
140	145	1460	20.4	19.7	18.7	25.4	29.1	2.72	5.2	13.4	0.28	6.08	47.6	96	2.62	0.103	0.090	10.5	0.63	4637	8594	276	89	D	G	0.3086	450.5	3.10
145	150	1379	20.8	20.1	18.9	25.7	29.3	2.77	5.3	13.5	0.28	6.32	47.0	95	2.69	0.105	0.092	10.3	0.62	4567	8594	269	87	D	G	0.3259	449.4	2.99
150	155	1305	21.3	20.6	19.1	25.9	29.5	2.82	5.4	13.7	0.28	6.56	46.5	94	2.77	0.107	0.094	10.1	0.62	4501	8594	262	86	D	G	0.3433	448.0	2.88
155	160	1238	21.7	21.0	19.3	26.0	29.7	2.87	5.5	13.8	0.28	6.79	46.0	93	2.84	0.109	0.096	9.9	0.61	4439	8594	256	84	D	G	0.3606	446.4	2.78
160	165	1177	22.2	21.5	19.5	26.2	29.9	2.92	5.6	13.9	0.28	7.02	45.5	92	2.91	0.111	0.098	9.7	0.60	4380	8594	250	83	D	G	0.3777	444.6	2.69
165	170	1122	22.6	21.9	19.7	26.4	30.1	2.97	5.7	14.0	0.29	7.25	45.0	91	2.99	0.113	0.099	9.5	0.60	4326	8594	244	81	D	G	0.3946	442.7	2.60
170	175	1071	23.0	22.3	19.8	26.5	30.2	3.01	5.7	14.1	0.29	7.48	44.6	91	3.06	0.115	0.101	9.3	0.59	4275	8594	239	80	D	G	0.4115	440.7	2.51
175	180	1025	23.4	22.7	20.0	26.7	30.4	3.06	5.8	14.1	0.29	7.70	44.2	90	3.12	0.117	0.103	9.1	0.59	4227	8594	234	79	D	G	0.4280	438.7	2.43
180	185	982	23.8	23.1	20.2	26.8	30.5	3.10	5.9	14.2	0.29	7.92	43.8	89	3.19	0.119	0.105	9.0	0.58	4182	8594	230	78	D	G	0.4445	436.5	2.35
SI = 20 m Initial Density = 80000 stems/ha																												
5	10	74947	0.7	0.7	1.9	3.3	3.6	0.67	1.0	0.8	0.54	0.35	3.1	321	0.37	0.112	0.102	3.6	0.05	8831	11973	387	262	D	G	0.0000	3.0	0.29
10	15	64496	1.7	1.6	3.1	5.4	6.1	0.71	1.2	1.6	0.41	0.40	14.2	200	0.39	0.072	0.065	11.0	0.20	9583	11973	590	259	D	G	0.0003	22.0	1.43
15	20	52515	2.5	2.4	4.3	7.5	8.5	0.78	1.3	2.4	0.35	0.48	26.5	171	0.44	0.058	0.051	16.7	0.36	9821	11973	717	251	D	G	0.0011	56.4	2.77
20	25	41694	3.4	3.2	5.3	9.4	10.8	0.85	1.5	3.1	0.31	0.57	37.1	156	0.49	0.052	0.046	20.2	0.50	9728	11973	776	238	D	G	0.0024	98.6	3.89
25	30	32952	4.2	3.9	6.3	11.1	12.8	0.92	1.6	3.8	0.29	0.68	45.1	146	0.55	0.050	0.043	22.1	0.61	9467	11973	788	224	D	G	0.0043	142.0	4.68
30	35	26220	5.0	4.7	7.2	12.6	14.6	1.00	1.8	4.4	0.28	0.81	50.8	138	0.62	0.049	0.042	22.8	0.68	9138	11973	774	211	D	G	0.0070	182.9	5.17
35	40	21115	5.7	5.4	8.1	13.9	16.2	1.08	1.9	5.0	0.27	0.94	54.7	133	0.69	0.049	0.042	22.8	0.73	8790	11973	746	199	D	G	0.0104	219.8	5.45
40	45	17240	6.5	6.2	8.9	15.1	17.6	1.16	2.1	5.6	0.27	1.09	57.2	128	0.76	0.050	0.043	22.4	0.76	8447	11973	713	188	D	G	0.0146	252.2	5.56
45	50	14273	7.2	6.9	9.6	16.1	18.9	1.24	2.2	6.1	0.26	1.25	58.7	124	0.84	0.052	0.044	21.8	0.77	8120	11973	677	179	D	G	0.0196	280.4	5.57
50	55	11973	8.0	7.6	10.2	17.1	20.0	1.32	2.4	6.6	0.26	1.42	59.5	121	0.91	0.053	0.046	21.1	0.78	7812	11973	642	170	D	G	0.0254	304.7	5.50
55	60	10167	8.6	8.2	10.8	17.9	21.0	1.39	2.5	7.1	0.26	1.59	59.7	119	0.99	0.055	0.047	20.3	0.78	7524	11973	608	162	D	G	0.0320	325.5	5.39
60	65	8729	9.3	8.9	11.4	18.7	21.9	1.47	2.7	7.5	0.26	1.77	59.6	117	1.07	0.057	0.049	19.5	0.78	7256	11973	577	155	D	G	0.0393	343.3	5.25
65	70	7571	10.0	9.5	11.9	19.4	22.7	1.54	2.8	8.0	0.26	1.96	59.2	115	1.15	0.059	0.051	18.8	0.77	7006	11973	547	148	D	G	0.0474	358.5	5.10
70	75	6627	10.6	10.1	12.4	20.0	23.4	1.61	3.0	8.4	0.26	2.15	58.7	113	1.23	0.062	0.052	18.0	0.77	6773	11973	520	142	D	G	0.0560	371.3	4.93
75	80	5848	11.2	10.7	12.8	20.5	24.1	1.68	3.1	8.7	0.26	2.34	58.0	111	1.31	0.064	0.054	17.3	0.76	6557	11973	495	137	D	G	0.0653	382.0	4.75
80	85	5200	11.8	11.3	13.2	21.0	24.7	1.75	3.2	9.1	0.26	2.53	57.3	110	1.39	0.066	0.056	16.6	0.75	6355	11973	472	132	D	G	0.0752	391.0	4.58
85	90	4655	12.4	11.9	13.6	21.5	25.2	1.82	3.4	9.4	0.26	2.73	56.5	109	1.47	0.068	0.058	16.0	0.74	6167	11973	450	127	D	G	0.0856	398.4	4.41
90	95	4193	13.0	12.5	14.0	21.9	25.7	1.88	3.5	9.8	0.26	2.93	55.6	108	1.54	0.070	0.060	15.4	0.73	5992	11973	431	123	D	G	0.0965	404.5	4.24
95	100	3798	13.6	13.0	14.3	22.3	26.2	1.94	3.6	10.1	0.26	3.13	54.8	106	1.62	0.073	0.062	14.9	0.71	5829	11973	413	119	D	G	0.1078	409.4	4.08
100	105	3459	14.1	13.5	14.7	22.7	26.6	2.01	3.8	10.4	0.27	3.33	53.9	105	1.70	0.075	0.064	14.4	0.70	5676	11973	396	115	D	G	0.1195	413.2	3.92
105	110	3165	14.6	14.0	15.0	23.0	27.0	2.06	3.9	10.6	0.27	3.53	53.1	104	1.78	0.077	0.066	13.9	0.69	5533	11973	381	112	D	G	0.1315	416.2	3.77
110	115	2909	15.1	14.5	15.2	23.4	27.4	2.12	4.0	10.9	0.27	3.73	52.3	103	1.85	0.079	0.068	13.4	0.68	5399	11973	367	108	D	G	0.1438	418.4	3.63
115	120	2684	15.6	15.0	15.5	23.6	27.7	2.18	4.1	11.1	0.27	3.93	51.5	103	1.93	0.082	0.070	13.0	0.67	5274	11973	354	105	D	G	0.1564	419.9	3.49
120	125	2486	16.1	15.5	15.8	23.9	28.0	2.23	4.2	11.3	0.27	4.13	50.7	102	2.01	0.084	0.072	12.6	0.66	5156	11973	341	103	D	G	0.1693	420.8	3.36
125	130	2311	16.6	15.9	16.0	24.2	28.3	2.29	4.4	11.5	0.27	4.33	50.0	101	2.08	0.086	0.073	12.3	0.65	5046	11973	330	100	D	G	0.1823	421.2	3.23
130	135	2156	17.1	16.4	16.2	24.4	28.6	2.34	4.5	11.7	0.28	4.53	49.2	100	2.15	0.088	0.075	11.9	0.64	4943	11973	319	98	D	G	0.1954	421.2	3.11
135	140	2017	17.5	16.8	16.4	24.6	28.8	2.39	4.6	11.9	0.28	4.73	48.5	99	2.23	0.090	0.077	11.6	0.63	4846	11973	310	95	D	G	0.2086	420.8	3.00
140	145	1892	17.9	17.3	16.6	24.9	29.1	2.44	4.7	12.1	0.28	4.92	47.9	98	2.30	0.093	0.079	11.3	0.62	4755	11973	301	93	D	G	0.2220	420.1	2.89
145	150	1780	18.4	17.7	16.8	25.1	29.3	2.49	4.8	12.2	0.28	5.12	47.2	97	2.37	0.095	0.081	11.0	0.61	4670	11973	292	91	D	G	0.2354	419.1	2.79
150	155	1679	18.8	18.1	17.0	25.2	29.5	2.54	4.9	12.4	0.28	5.32	46.6	96	2.44	0.097	0.083	10.7	0.61	4590	11973	284	89	D	G	0.2489	417.9	2.69
155	160	1588	19.2	18.5	17.2	25.4	29.7	2.58	5.0	12.5	0.28	5.51	46.0	96	2.51	0.099	0.085	10.5	0.60	4514	11973	277	88	D	G	0.2622	416.4	2.60
160	165	1505	19.6	18.9	17.3	25.6	29.9	2.63	5.1	12.6	0.29	5.71	45.4	95	2.58	0.101	0.086	10.3	0.59	4443	11973	270	86	D	G	0.2756	414.8	2.51
165	170	1429	20.0	19.3	17.5	25.7	30.1	2.67	5.2	12.7	0.29	5.90	44.9	94	2.65	0.103	0.088	10.0	0.58	4376	11973	263	84	D	G	0.2891	413.1	2.42
170	175	1360	20.4	19.7	17.7	25.9	30.2	2.71	5.3	12.8	0.29	6.09	44.4	93	2.71	0.105	0.090	9.8	0.57	4314	11973	257	83	D	G	0.3024	411.2	2.34
175	180	1296	20.8	20.0	17.8	26.0	30.4	2.76	5.3	12.9	0.29	6.28	43.9	92	2.78	0.107	0.091	9.6	0.57	4255	11973	251	81	D	G	0.3157	409.2	2.27
180	185	1238	21.1	20.4	17.9	26.2	30.5	2.80	5.4	13.0	0.29	6.47	43.5	92	2.84	0.109	0.093	9.5	0.56	4199	11973	246	80	D	G	0.3289	407.2	2.20

Bh age	Total age	Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 20 m Initial Density = 50000 stems/ha													
5	10	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	25	113	7.7	1.3	0.05	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	30	1269	7.9	17.6	0.58	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	35	3275	8.2	58.5	1.65	2	12.5	0.2	0.01	0	0.0	0.0	0.00
35	40	4992	8.6	113.1	2.80	42	12.7	2.9	0.07	1	14.3	0.1	0.00
40	45	5921	9.1	168.3	3.71	234	12.8	17.1	0.38	19	14.5	1.7	0.04
45	50	6182	9.6	217.4	4.32	601	13.0	47.4	0.94	107	14.6	9.6	0.19
50	55	6030	10.1	259.1	4.68	1068	13.3	91.5	1.65	290	14.8	28.2	0.51
55	60	5669	10.7	293.6	4.86	1522	13.6	141.8	2.35	557	15.0	58.2	0.96
60	65	5226	11.2	322.0	4.93	1888	14.0	191.2	2.93	857	15.3	96.3	1.47
65	70	4771	11.8	345.5	4.91	2139	14.3	235.8	3.35	1137	15.6	137.9	1.96
70	75	4337	12.4	364.8	4.84	2283	14.7	274.1	3.64	1368	15.9	178.9	2.37
75	80	3940	13.0	380.6	4.74	2344	15.1	305.8	3.81	1539	16.2	216.8	2.70
80	85	3566	13.6	393.6	4.61	2338	15.5	331.7	3.89	1649	16.6	250.5	2.93
85	90	3253	14.2	404.3	4.47	2293	15.9	352.6	3.90	1711	16.9	279.5	3.09
90	95	2973	14.7	412.9	4.33	2219	16.3	369.4	3.87	1733	17.3	304.1	3.19
95	100	2728	15.3	419.9	4.18	2131	16.7	382.8	3.81	1726	17.6	324.6	3.23
100	105	2510	15.8	425.5	4.04	2035	17.2	393.4	3.73	1697	18.0	341.6	3.24
105	110	2317	16.4	429.8	3.89	1935	17.6	401.7	3.64	1654	18.4	355.6	3.22
110	115	2146	16.9	433.1	3.75	1836	18.0	408.2	3.54	1602	18.8	367.0	3.18
115	120	1992	17.4	435.5	3.62	1742	18.5	413.2	3.43	1545	19.2	376.3	3.13
120	125	1857	17.9	437.2	3.49	1652	18.9	416.9	3.33	1487	19.5	383.8	3.06
125	130	1738	18.4	438.2	3.36	1568	19.3	419.7	3.22	1428	19.9	389.7	2.99
130	135	1631	18.9	438.7	3.24	1489	19.7	421.5	3.11	1370	20.3	394.4	2.91
135	140	1531	19.4	438.7	3.13	1407	20.2	422.4	3.01	1311	20.7	398.0	2.84
140	145	1446	19.8	438.3	3.02	1341	20.6	423.1	2.91	1258	21.1	400.7	2.76
145	150	1365	20.3	437.6	2.91	1275	21.0	423.2	2.81	1199	21.5	402.4	2.68
150	155	1293	20.7	436.6	2.81	1218	21.4	423.0	2.72	1152	21.8	403.8	2.60
155	160	1229	21.2	435.3	2.71	1164	21.8	422.4	2.63	1106	22.2	404.6	2.52
160	165	1169	21.6	433.9	2.62	1113	22.1	421.5	2.55	1063	22.6	405.0	2.45
165	170	1114	22.0	432.3	2.54	1065	22.5	420.3	2.47	1021	22.9	405.1	2.38
170	175	1065	22.4	430.6	2.46	1022	22.9	419.0	2.39	983	23.3	404.8	2.31
175	180	1021	22.8	428.7	2.38	982	23.2	417.5	2.31	948	23.6	404.2	2.24
180	185	979	23.2	426.8	2.30	946	23.6	415.9	2.24	915	24.0	403.4	2.18
SI = 20 m Initial Density = 80000 stems/ha													
5	10	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	25	9	7.6	0.1	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	30	317	7.8	4.0	0.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	35	1793	7.9	26.6	0.75	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	40	3760	8.2	68.4	1.69	2	12.5	0.2	0.00	0	0.0	0.0	0.00
40	45	5372	8.6	119.1	2.63	38	12.6	2.7	0.06	1	14.3	0.1	0.00
45	50	6297	8.9	168.7	3.35	172	12.7	12.6	0.25	13	14.3	1.5	0.02
50	55	6620	9.4	212.5	3.84	443	12.9	34.5	0.62	61	14.5	5.5	0.10
55	60	6546	9.8	249.5	4.13	821	13.1	67.9	1.13	177	14.7	16.6	0.28
60	65	6249	10.2	280.0	4.28	1227	13.4	108.3	1.66	362	14.9	36.2	0.55
65	70	5844	10.7	305.1	4.34	1595	13.6	150.6	2.14	594	15.1	63.2	0.90
70	75	5405	11.2	325.6	4.32	1890	13.9	190.9	2.53	842	15.3	95.0	1.26
75	80	4970	11.7	342.4	4.26	2100	14.2	227.0	2.82	1075	15.5	128.8	1.60
80	85	4526	12.2	356.0	4.17	2229	14.5	258.2	3.03	1271	15.8	161.9	1.90
85	90	4154	12.6	367.3	4.07	2295	14.8	284.5	3.15	1427	16.0	193.0	2.14
90	95	3815	13.1	376.6	3.95	2309	15.2	306.4	3.21	1539	16.3	221.1	2.32
95	100	3511	13.6	384.0	3.83	2288	15.5	324.2	3.23	1614	16.6	245.8	2.45
100	105	3238	14.0	390.1	3.70	2241	15.8	338.8	3.22	1656	16.9	267.2	2.54
105	110	2989	14.5	394.9	3.58	2173	16.2	350.5	3.18	1669	17.2	285.6	2.59
110	115	2771	15.0	398.6	3.46	2099	16.5	359.9	3.12	1664	17.5	301.1	2.61
115	120	2569	15.4	401.4	3.34	2017	16.9	367.4	3.05	1644	17.8	314.2	2.61
120	125	2393	15.9	403.4	3.22	1935	17.2	373.3	2.98	1614	18.1	325.1	2.59
125	130	2235	16.3	404.8	3.11	1850	17.6	377.8	2.90	1574	18.4	334.1	2.56
130	135	2093	16.7	405.7	3.00	1758	18.0	380.6	2.81	1531	18.7	341.5	2.52
135	140	1964	17.1	406.1	2.89	1680	18.3	383.3	2.73	1483	19.0	347.6	2.48
140	145	1849	17.5	406.0	2.79	1607	18.6	385.1	2.65	1424	19.4	351.7	2.42
145	150	1742	17.9	405.6	2.70	1535	19.0	386.3	2.57	1376	19.7	355.7	2.37
150	155	1647	18.3	404.9	2.61	1470	19.3	387.0	2.49	1331	20.0	358.9	2.31
155	160	1560	18.7	404.0	2.52	1407	19.6	387.2	2.41	1284	20.3	361.3	2.25
160	165	1481	19.1	402.8	2.44	1348	20.0	387.1	2.34	1241	20.6	363.2	2.20
165	170	1409	19.5	401.4	2.36	1292	20.3	386.6	2.27	1198	20.9	364.4	2.14
170	175	1343	19.8	399.9	2.28	1241	20.6	385.8	2.20	1157	21.2	365.3	2.08
175	180	1281	20.2	398.3	2.21	1191	20.9	384.9	2.13	1116	21.5	365.7	2.03
180	185	1225	20.5	396.5	2.14	1145	21.3	383.7	2.07	1079	21.8	365.8	1.97

Table A118. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume) N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	Util. std. = 8/6 N	D	V/ha	Mai	Util. std. = 13/7 N	D	V/ha	Mai	Util. std = 15/10 N	D	V/ha	Mai
SI = 22 m Initial Density = 800 stems/ha																																								
5	10	795	3.6	3.3	3.0	3.7	3.9	0.86	2.5	0.5	0.82	0.59	0.8	105	3.55	0.962	0.918	0.4	0.01	185	589	16	5	V	S	0.0016	1.3	0.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	783	6.8	6.3	5.2	6.3	6.7	1.18	3.8	1.7	0.69	1.14	2.8	95	3.57	0.563	0.532	1.1	0.03	393	589	34	9	A	S	0.0106	8.3	0.56	202	9.3	3.6	0.24	6	12.9	0.2	0.01	0	0.0	0.0	0.00
15	20	767	9.5	9.0	7.4	8.9	9.5	1.48	4.7	3.2	0.59	1.83	5.5	94	3.61	0.405	0.381	1.8	0.06	650	589	52	14	A	S	0.0300	23.0	1.16	518	10.7	18.2	0.92	127	13.8	7.8	0.39	48	15.3	3.2	0.16
20	25	745	12.0	11.4	9.5	11.3	12.0	1.76	5.3	4.7	0.52	2.58	8.5	94	3.66	0.325	0.306	2.4	0.09	925	589	69	19	A	S	0.0596	44.4	1.79	635	12.4	39.8	1.60	318	14.9	28.4	1.14	192	16.2	18.4	0.74
25	30	721	14.2	13.6	11.4	13.4	14.2	2.01	5.7	6.3	0.47	3.37	11.5	93	3.72	0.279	0.262	3.0	0.13	1201	589	83	24	A	S	0.0982	70.8	2.37	668	14.2	66.2	2.22	454	16.2	56.1	1.88	339	17.2	44.2	1.48
30	35	695	16.2	15.5	13.2	15.2	16.2	2.24	6.0	7.6	0.44	4.17	14.4	92	3.79	0.249	0.234	3.6	0.16	1464	589	96	29	A	S	0.1440	100.1	2.87	667	15.9	95.3	2.73	530	17.5	86.8	2.49	441	18.4	75.0	2.15
35	40	668	18.0	17.3	14.8	16.9	17.9	2.44	6.3	8.9	0.41	4.96	17.1	92	3.87	0.229	0.216	4.0	0.20	1707	589	107	33	B	S	0.1954	130.5	3.27	653	17.6	125.5	3.15	564	18.8	118.0	2.96	499	19.5	107.1	2.69
40	45	641	19.7	18.9	16.3	18.4	19.5	2.63	6.5	10.0	0.39	5.74	19.5	91	3.95	0.215	0.203	4.4	0.23	1928	589	115	37	B	S	0.2505	160.6	3.58	632	19.1	155.5	3.47	574	20.0	148.6	3.31	528	20.7	138.8	3.09
45	50	615	21.2	20.5	17.6	19.7	20.8	2.80	6.7	11.0	0.37	6.50	21.7	90	4.03	0.205	0.194	4.7	0.26	2125	589	122	40	B	S	0.3086	189.8	3.81	610	20.6	184.5	3.70	571	21.3	177.9	3.57	538	21.8	169.1	3.39
50	55	589	22.6	21.8	18.8	20.9	22.0	2.96	6.9	11.9	0.36	7.24	23.6	89	4.12	0.197	0.187	5.0	0.29	2300	589	128	43	B	S	0.3683	216.9	3.95	586	21.9	211.4	3.85	559	22.5	205.0	3.74	536	22.9	197.1	3.59
55	60	565	23.9	23.1	19.9	21.9	23.1	3.11	7.0	12.7	0.35	7.95	25.3	88	4.21	0.192	0.182	5.2	0.32	2455	589	133	45	B	S	0.4287	242.2	4.05	563	23.2	236.6	3.95	545	23.6	230.3	3.85	527	24.0	223.0	3.73
60	65	542	25.1	24.3	20.9	22.9	24.0	3.25	7.2	13.4	0.35	8.65	26.8	87	4.30	0.188	0.179	5.3	0.35	2591	589	136	47	B	S	0.4893	265.2	4.09	541	24.4	259.4	4.00	528	24.7	253.1	3.90	515	25.0	246.5	3.80
65	70	521	26.2	25.4	21.8	23.7	24.8	3.37	7.3	14.0	0.34	9.31	28.1	86	4.38	0.185	0.176	5.5	0.37	2712	589	139	49	B	S	0.5495	286.3	4.10	520	25.5	280.4	4.01	511	25.7	274.0	3.92	501	26.0	267.9	3.83
70	75	502	27.2	26.5	22.6	24.5	25.6	3.49	7.4	14.6	0.34	9.96	29.3	86	4.46	0.182	0.174	5.6	0.40	2818	589	141	50	B	S	0.6088	305.6	4.08	502	26.5	299.6	4.00	495	26.7	293.1	3.92	487	26.9	287.5	3.84
75	80	484	28.2	27.5	23.3	25.2	26.3	3.60	7.6	15.0	0.33	10.58	30.2	85	4.55	0.180	0.173	5.7	0.42	2913	589	143	51	C	S	0.6667	322.7	4.04	484	27.5	316.7	3.97	479	27.6	310.1	3.88	473	27.8	304.9	3.82
80	85	467	29.1	28.4	24.0	25.8	26.9	3.70	7.7	15.5	0.33	11.17	31.1	84	4.63	0.179	0.172	5.8	0.44	2998	589	144	52	C	S	0.7233	337.8	3.98	467	28.4	331.7	3.91	463	28.5	325.0	3.83	459	28.7	320.1	3.77
85	90	452	30.0	29.2	24.6	26.4	27.4	3.79	7.8	15.8	0.33	11.74	31.9	83	4.70	0.178	0.171	5.8	0.46	3074	589	145	53	C	S	0.7781	351.7	3.91	452	29.2	345.5	3.84	449	29.3	338.8	3.77	445	29.5	334.1	3.72
90	95	438	30.8	30.0	25.2	26.9	28.0	3.88	7.9	16.2	0.32	12.29	32.6	82	4.78	0.177	0.171	5.9	0.48	3143	589	146	54	C	S	0.8313	364.1	3.84	438	30.0	357.8	3.77	436	30.1	351.0	3.70	433	30.2	346.6	3.65
95	100	426	31.5	30.8	25.7	27.4	28.4	3.97	8.0	16.5	0.32	12.81	33.3	82	4.85	0.177	0.170	5.9	0.50	3206	589	147	55	C	S	0.8824	375.9	3.76	426	30.8	369.6	3.70	424	30.9	362.6	3.63	422	31.0	358.5	3.59
100	105	414	32.2	31.5	26.2	27.9	28.8	4.05	8.1	16.7	0.32	13.31	33.8	81	4.91	0.176	0.170	6.0	0.52	3264	589	147	55	C	S	0.9314	385.6	3.68	414	31.5	379.2	3.62	413	31.5	372.3	3.55	411	31.6	368.3	3.51
105	110	404	32.9	32.2	26.7	28.3	29.2	4.12	8.1	17.0	0.32	13.79	34.4	80	4.98	0.176	0.170	6.0	0.54	3317	589	148	56	C	S	0.9787	395.4	3.60	404	32.2	388.9	3.54	403	32.2	381.9	3.48	401	32.3	378.1	3.44
110	115	394	33.5	32.8	27.1	28.6	29.6	4.19	8.2	17.2	0.32	14.26	34.8	79	5.04	0.176	0.170	6.0	0.55	3367	589	148	56	C	S	1.0236	403.3	3.51	394	32.8	396.9	3.46	393	32.8	389.8	3.39	392	32.9	386.1	3.36
115	120	385	34.1	33.4	27.5	29.0	29.9	4.25	8.3	17.3	0.32	14.70	35.2	79	5.10	0.176	0.170	6.0	0.57	3414	589	148	57	C	S	1.0668	410.7	3.43	385	33.4	404.2	3.37	384	33.4	397.0	3.31	383	33.5	393.5	3.28
120	125	377	34.7	34.0	27.9	29.3	30.3	4.32	8.3	17.5	0.32	15.13	35.7	78	5.15	0.176	0.170	6.1	0.59	3458	589	148	57	C	S	1.1080	417.7	3.35	377	34.0	411.2	3.29	377	34.0	404.0	3.24	376	34.0	400.6	3.21
125	130	369	35.2	34.5	28.2	29.6	30.5	4.38	8.4	17.6	0.32	15.54	36.0	77	5.21	0.176	0.170	6.1	0.60	3500	589	148	57	C	S	1.1472	423.3	3.26	369	34.5	416.8	3.21	369	34.5	409.5	3.15	368	34.6	406.2	3.13
130	135	362	35.8	35.0	28.5	29.9	30.8	4.43	8.4	17.7	0.32	15.93	36.3	77	5.26	0.176	0.171	6.1	0.62	3540	589	148	58	C	S	1.1845	428.8	3.18	362	35.0	422.2	3.13	362	35.0	414.9	3.08	361	35.1	411.7	3.05
135	140	356	36.2	35.5	28.8	30.2	31.1	4.49	8.5	17.8	0.32	16.31	36.7	76	5.30	0.176	0.171	6.1	0.63	3578	589	149	58	C	S	1.2202	434.4	3.11	356	35.5	427.8	3.06	356	35.5	420.4	3.01	355	35.6	417.3	2.98
140	145	350	36.7	36.0	29.1	30.4	31.3	4.54	8.5	17.9	0.32	16.67	37.0	75	5.35	0.176	0.171	6.1	0.65	3615	589	149	58	C	S	1.2543	439.0	3.03	350	36.0	432.3	2.98	350	36.0	424.9	2.93	349	36.0	421.9	2.91
145	150	345	37.1	36.4	29.4	30.7	31.5	4.59	8.6	18.0	0.32	17.02	37.4	75	5.38	0.176	0.171	6.1	0.66	3650	589	149	59	C	S	1.2867	443.9	2.96	345	36.4	437.2	2.92	345	36.4	429.7	2.87	345	36.4	426.8	2.85
150	155	340	37.6	36.8	29.6	30.9	31.7	4.63	8.6	18.0	0.32	17.36	37.7	74	5.42	0.176	0.171	6.1	0.68	3685	589	149	59	C	S	1.3174	447.9	2.89	340	36.8	441.1	2.85	340	36.8	433.6	2.80	340	36.8	430.8	2.78
155	160	335	38.0	37.2	29.8	31.1	31.9	4.68	8.7	18.0	0.32	17.69	37.9	74	5.46	0.176	0.171	6.2	0.69	3718	589	149	59	C	S	1.3466	451.1	2.82	335	37.2	444.3	2.78	335	37.2	436.7	2.73	335	37.2	434.0	2.71
160	165	331	38.4	37.6	30.1	31.3	32.1	4.72	8.7	18.1	0.32	18.01	38.3	73	5.50	0.176	0.171	6.2	0.71	3751	589	150	60	C	S	1.3743	454.9	2.76	331	37.6	448.1	2.72	331	37.6	440.4	2.67	331	37.6	437.7	2.65
165	170	327	38.7	38.0	30.3	31.5	32.3	4.76	8.7	18.1	0.32	18.31	38.5	72	5.53	0.176	0.171	6.2	0.72	3783	589	150	60	C	S	1.4006	458.0	2.70	327	38.0	451.1	2.66	327	38.0	443.5	2.61	327	38.0	440.8	2.59
170	175	323	39.1	38.4	30.5	31.7	32.4	4.80	8.8	18.1	0.32	18.61	38.8	72	5.56	0.176	0.171	6.2	0.73	3814	589	150	60	C	S	1.4254	460.4	2.63	323	38.4	453.6	2.59	323	38.4	445.9	2.55	323	38.4	443.3	2.54
175	180	320	39.4	38.7	30.6	31.8	32.6	4.83	8.8	18.1	0.32	18.90	39.1	71	5.59	0.176	0.171	6.2	0.75	3844	589	150	60	C	S	1.4494	463.8	2.58	320	38.7	456.9	2.54	320	38.7	449.1	2.50	320	38.7	446.6	2.48
180	185	317	39.8	39.0	30.8	32.0	32.7	4.87	8.8	18.1	0.32	19.17	39.4	71	5.62	0.176	0.172	6.2	0.76	3875	589	151	61	C	S	1.4719	466.6	2.52	317	39.0	459.7	2.49	317	39.0	451.9	2.44	317	39.0	449.4	2.43
SI = 22 m Initial Density = 1000 stems/ha																																								
5	10	992	3.4	3.1	3.0	3.7	3.9	0.84	2.4	0.6	0.81	0.57	0.9	109	3.18	0.863	0.822	0.5	0.01	221	677	18	6	A	S	0.0014	1.4	0.14	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	973	6.4	6.0	5.2	6.3	6.7	1.14	3.7	1.7	0.67	1.07	3.1	98	3.21	0.506	0.478	1.2	0.03	455	677	39	10	A	S	0.0094	9.1	0.61	199	9.2	3.3	0.22	3	12.8	0.1	0.01	0	0.0	0.0	0.00
15	20	946	9.1	8.6	7.3	8.9	9.5	1.43	4.5	3.2	0.57	1.70	6.1	97	3.25	0.366	0.344	2.0	0.06	739	677	60	16	A	S	0.0265	25.1	1.26	596	10.4	19.0	0.96	114	13.6	6.7	0.34	36	15.1	2.3	0.12
20	25	912	11.4	10.8	9.4	11.2	12.0	1.70	5.0	4.8	0.50	2.39	9.4	96	3.31	0.295	0.276	2.8	0.10	1041	677	78	22	A	S	0.0531	48.4	1.95	755	11.9	42.6	1.71	334	14.6	28.2	1.13	185	15.9	16.9	0.68
25	30	874	13.6	12.9	11.3	13.3	14.2	1.94	5.4	6.3	0.46	3.13	12.6	95	3.38	0.254	0.238	3.4	0.14	1338	677	95	27	A	S	0.0880	76.9	2.57	798	13.6	71.3	2.39	506	15.7	58.4	1.96	359	16.9	43.9	1.47
30	35	833	15.5	14.8	13.1	15.2	16.2	2.16	5.7	7.7	0.42	3.87	15.7	94	3.46	0.228	0.214	4.0	0.18	1616	677	108	32	B	S	0.1298	108.1	3.10	793	15.3	102.5	2.94	603	16.9	91.6	2.63	486	17.9	77.0	2.21
35	40	792	17.3	16.6	14.7	16.9	17.9	2.36	6.0	8.9	0.40	4.62	18.6	94	3.55	0.211	0.198	4.5	0.22	1870	677	119	37	B	S	0.1770	140.2	3.52	770	16.9	134.5	3.37	647	18.2	125.2	3.14	561	19.0	111.7	2.80
40	45	752	18.9	18.2	16.1	18.3	19.5	2.55	6.2	10.0	0.38	5.37	21.1	93	3.65	0.199	0.187	4.9	0.25	2096	677	128	40	B	S	0.2285	171.8	3.83	740	18.4	166.0	3.70	659	19.4	157.8	3.52	598	20.1	145.7	3.25
45	50	714	20.4	19.7	17.4	19.7	20.8	2.72	6.4	11.0	0.36	6.10	23.4	92	3.74	0.190	0.180	5.2	0.29	2294	677	135	44	B	S	0.2831	202.1	4.05	707	19.8	196.2	3.93	653	20.6	188.6	3.78	610	21.2	177.9	3.57
50	55	677	21.8	21.1	18.6	20.8	22.0	2.88	6.6	11.9	0.35	6.82	25.3	91	3.84	0.185	0.175	5.4	0.32	2466	677	140	46	B	S	0.3397	230.0	4.19	673	21.2	224.0	4.08	637	21.8	216.8	3.95	605	22.3	207.2	3.78
55	60	643	23.1	22.4	19.7	21.9	23.1	3.02	6.8	12.7	0.34	7.52	26.9	90	3.94	0.180	0.171	5.6	0.34	2616	677	144	48	B	S	0.3977	255.7	4.27	640	22.4	249.6	4.17	615	22.9	242.5	4.05	593	23.3	234.0	3.91
60	65	612	24.3	23.6	20.7	22.8	24.0	3.16	6.9	13.4	0.34	8.20	28.4	89	4.04	0.177	0.168	5.8	0.37	2745	677	147	50	C	S	0.4562	279.2	4.30	610	23.6	273.0	4.21	593	24.0	266.0	4.10	576	24.3	258.2	3.98
65	70	583	25.4	24.7	21.6	23.7	24.8	3.29	7.1	14.0	0.33	8.86	29.6	88	4.14	0.175	0.167	5.9	0.39	2858	677	149	52	C	S	0.5146	300.0	4.29	582	24.7	293.7	4.20	569	25.1	286.8	4.11	557	25.3	279.8	4.00
70	75	557	26.5	25.8	22.4	24.4	25.6	3.41	7.2	14.6	0.33	9.50	30.7	87	4.24	0.174	0.166	6.0	0.42	2956	677	151	53	C	S	0.5725	318.9	4.26	557	25.8	312.6	4.18	547	26.0	305.6	4.08	538	26.3	299.2	4.00
75	80	533	27.5	26.7	23.1	25.1	26.3	3.52	7.3	15.0	0.32	10.11	31.6	86	4.33	0.173	0.165	6.0	0.44	3042	677	152	54	C	S	0.6296	335.6	4.20	533	26.7	329.2	4.12	526	27.0	322.2	4.03	519	27.2	316.3	3.96
80	85	512	28.4	27.7	23.8	25.7	26.9	3.62	7.5	15.5	0.32	10.71	32.5	85	4.42	0.172	0.164	6.1	0.46	3118	677	153	55	C	S	0.6855	351.0	4.14	512	27.7	344.5	4.06	507	27.8	337.5	3.98	501	28.0	331.9	3.91
85	90	492	29.3	28.5	24.4	26.3	27.4	3.72	7.6	15.8	0.32	11.28	33.1	84	4.51	0.171	0.164	6.1	0.48	3186	677	153	56	C	S	0.7398	364.0	4.05	492	28.5	357.5	3.98	488	28.7	350.4	3.90	484	28.8	345.3	3.84
90	95	475	30.1	29.4	25.0	26.8	28.0	3.81	7.7	16.2	0.32	11.83	33.8	84	4.59	0.171	0.164	6.2	0.49	3247	677	154	56	C	S	0.7926	376.5	3.97	475	29.4	370.0	3.90	472	29.5	362.8	3.82	469	29.6	358.0	3.77
95	100	459	30.9	30.1	25.5	27.3	28.4	3.90	7.8	16.5	0.32	12.36	34.4	83	4.67	0.171	0.164	6.2	0.51	3303	677	154	57	C	S	0.8438	387.3	3.88	459	30.1	380.7	3.81	457	30.2	373.5	3.74	454	30.3	368.9	3.69
100	105	444	31.6	30.9	26.0	27.8	28.8	3.98	7.9	16.7	0.32	12.87	34.8	82	4.75	0.171	0.165	6.2	0.53	3353	677	154	57	C	S	0.8930	396.5	3.78	444	30.9	389.8	3.72	442	31.0	382.6	3.65	440	31.0	378.3	3.61
105	110	431	32.3	31.6	26.5	28.2	29.2	4.05	8.0	17.0	0.32	13.36	35.3	81	4.82	0.171	0.165	6.2	0.55	3400	677	154	58	C	S	0.9404	405.3	3.69	431	31.6	398.6	3.63	430	31.6	391.3	3.56	428	31.7	387.2	3.52
110	115	419	32.9	32.2	26.9	28.6	29.6	4.12	8.0	17.2	0.32	13.83	35.7	80	4.89	0.171	0.165	6.2	0.56	3444	677	153	58	C	S	0.9857	413.0	3.60	419	32.2	406.3	3.54	418	32.3	399.0	3.47	416	32.4	395.0	3.44
115	120	408	33.6	32.8	27.3	28.9	29.9	4.19	8.1	17.3	0.32	14.28	36.1	80	4.95	0.171	0.165	6.2	0.58	3484	677	153	58	C	S	1.0292	419.9	3.50	408	32.8	413.2	3.45	407	32.9	405.8	3.39	406	32.9	402.1	3.35
120	125	398	34.2	33.4	27.7	29.3	30.3	4.26	8.2	17.5	0.32	14.71	36.5	79	5.01	0.171	0.166	6.2	0.59	3523	677	153	59	C	S	1.0709	426.2	3.41	398	33.4	419.5	3.36	397	33.5	412.0	3.30	396	33.5	408.4	3.27
125	130	389	34.7	34.0	28.0	29.6	30.5	4.32	8.2	17.6	0.32	15.13	36.8	78	5.07	0.172	0.166	6.2	0.61	3560	677	153	59	C	S	1.1105	432.0	3.33	389	34.0	425.3	3.27	389	34.0	417.9	3.22	388	34.0	414.4	3.19
130	135	380	35.2	34.5	28.3	29.8	30.8	4.38	8.3	17.7	0.32	15.53	37.1	77	5.13	0.172	0.166	6.2	0.62	3595	677	153	59	C	S	1.1484	436.4	3.24	380	34.5	429.7	3.19	380	34.5	422.2	3.13	379	34.6	418.8	3.11
135	140	373	35.7	35.0	28.6	30.1	31.1	4.43	8.4	17.8	0.32	15.92	37.4	77	5.18	0.172	0.167	6.3	0.64	3629	677	153	59	C	S	1.1847	441.9	3.16	373	35.0	435.1	3.11	373	35.0	427.6	3.06	372	35.1	424.3	3.03
140	145	366	36.2	35.5	28.9	30.4	31.3	4.48	8.4	17.9	0.32	16.29	37.7	76	5.23	0.172	0.167	6.3	0.65	3661	677	153	60	C	S	1.2194	446.3	3.08	366	35.5	439.5	3.03	366	35.5	431.9	2.98	365	35.5	428.7	2.96
145	150	359	36.7	35.9	29.2	30.6	31.5	4.53	8.5	17.9	0.32	16.65	37.9	75	5.28	0.172	0.167	6.3	0.66	3693	677	152	60	C	S	1.2521	449.5	3.00	359	35.9	442.7	2.95	359	35.9	435.1	2.90	358	36.0	432.0	2.88
150	155	353	37.1	36.4	29.4	30.8	31.7	4.58	8.5	18.0	0.32	17.00	38.2	75	5.32	0.173	0.168	6.3	0.68	3724	677	152	60	C	S	1.2836	453.1	2.93	353	36.4	446.2	2.88	353	36.4	438.6	2.83	353	36.4	435.6	2.81
155	160	348	37.5	36.8	29.6	31.0	31.9	4.63	8.6	18.0	0.32	17.33	38.5	74	5.36	0.173	0.168	6.3	0.69	3754	677	152	60	C	S	1.3132	457.0	2.86	348	36.8	450.1	2.82	348	36.8	442.4	2.77	348	36.8	439.6	2.75
160	165	343	37.9	37.2	29.9	31.2	32.1	4.67	8.6	18.1	0.32	17.65	38.8	74	5.40	0.173	0.168	6.3	0.70	3783	677	153	61	C	S	1.3417	460.2	2.79	343	37.2	453.3	2.75	343	37.2	445.5	2.70	343	37.2	442.7	2.69
165	170	338	38.3	37.6	30.1	31.4	32.3	4.71	8.6	18.1	0.32	17.96	39.0	73	5.44	0.173	0.169	6.3	0.72	3812	677	152	61	C	S	1.3686	462.6	2.72	338	37.6	455.6	2.68	338	37.6	447.9	2.64	338	37.6	445.1	2.62
170	175	334	38.7	37.9	30.3	31.6	32.4	4.75	8.7	18.1	0.32	18.27	39.2	72	5.47	0.173	0.169	6.3	0.73	3841	677	153	61	C	S	1.3943	465.7	2.66	334	37.9	458.7	2.62	334	37.9	450.9	2.58	334	37.9	448.2	2.56
175	180	330	39.0	38.3	30.5	31.8	32.6	4.79	8.7	18.1	0.32	18.56	39.5	72	5.50	0.173	0.169	6.3	0.74	3869	677	153	61	C	S	1.4185	468.1	2.60	330	38.3	461.1	2.56	330	38.3	453.3	2.52	330	38.3	450.6	2.51
180	185	326	39.4	38.6	30.6	31.9	32.7	4.83	8.7	18.1	0.32	18.84	39.7	71	5.54	0.174	0.169	6.3	0.75	3897	677	153	61	C	S	1.4417	470.0	2.54	326	38.6	463.0	2.50	326	38.6	455.1	2.46	326	38.6	452.5	2.45

Table A119. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																										Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 22 m Initial Density = 1600 stems/ha																																							
5	10	1579	3.0	2.8	2.9	3.7	3.9	0.81	2.3	0.6	0.78	0.52	1.1	118	2.52	0.687	0.651	0.6	0.01	321	898	25	B	A	S	0.0011	1.7	0.17	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	1532	5.7	5.3	5.0	6.3	6.7	1.07	3.3	1.8	0.64	0.93	3.9	105	2.55	0.405	0.381	1.6	0.04	618	898	53	14	A	S	0.0070	10.8	0.73	167	8.8	2.5	0.17	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	1465	8.1	7.6	7.1	8.8	9.5	1.33	4.0	3.3	0.54	1.45	7.6	102	2.61	0.296	0.276	2.7	0.08	969	898	80	21	A	S	0.0203	29.8	1.50	762	9.7	20.1	1.01	75	13.3	4.1	0.21	15	14.8	0.9	0.05
20	25	1385	10.3	9.7	9.1	11.2	12.0	1.57	4.5	4.8	0.47	2.04	11.5	101	2.69	0.241	0.224	3.6	0.13	1330	898	104	28	A	S	0.0413	57.2	2.30	1056	11.1	48.1	1.93	334	14.0	25.3	1.02	145	15.5	12.0	0.48
25	30	1298	12.3	11.7	11.0	13.2	14.2	1.79	4.8	6.3	0.43	2.67	15.3	100	2.78	0.210	0.195	4.4	0.18	1673	898	123	35	B	S	0.0693	90.0	3.01	1137	12.5	81.6	2.73	596	15.0	60.1	2.01	368	16.2	39.9	1.34
30	35	1209	14.1	13.5	12.7	15.1	16.2	2.00	5.1	7.6	0.40	3.32	18.9	99	2.88	0.190	0.178	5.0	0.22	1982	898	138	40	B	S	0.1037	125.4	3.60	1126	14.1	117.4	3.37	763	16.0	99.6	2.86	563	17.1	77.6	2.23
35	40	1123	15.8	15.1	14.3	16.7	17.9	2.19	5.4	8.9	0.37	3.99	22.0	98	2.98	0.178	0.166	5.5	0.26	2252	898	150	45	B	S	0.1435	161.2	4.04	1078	15.5	153.5	3.85	842	17.1	138.9	3.48	689	18.0	118.2	2.96
40	45	1042	17.4	16.7	15.7	18.2	19.5	2.37	5.6	10.0	0.36	4.67	24.7	97	3.10	0.170	0.159	5.9	0.30	2482	898	158	49	B	S	0.1878	195.7	4.36	1017	17.0	188.1	4.19	864	18.2	176.0	3.92	753	19.0	157.5	3.51
45	50	966	18.9	18.2	17.0	19.5	20.8	2.54	5.8	10.9	0.34	5.34	27.0	95	3.22	0.165	0.155	6.2	0.33	2675	898	164	52	C	S	0.2356	227.6	4.56	951	18.4	220.1	4.41	851	19.3	209.6	4.20	773	20.0	193.5	3.88
50	55	898	20.2	19.5	18.2	20.7	22.0	2.70	6.0	11.8	0.33	6.02	28.9	94	3.34	0.161	0.152	6.4	0.36	2836	898	168	54	C	S	0.2862	257.0	4.68	889	19.7	249.6	4.55	823	20.4	240.1	4.38	767	21.0	226.1	4.12
55	60	837	21.5	20.8	19.2	21.7	23.1	2.85	6.2	12.6	0.33	6.68	30.5	93	3.46	0.159	0.150	6.6	0.39	2969	898	171	56	C	S	0.3388	283.6	4.74	832	20.9	276.2	4.61	787	21.5	267.3	4.47	747	22.0	255.1	4.26
60	65	782	22.8	22.1	20.2	22.6	24.0	2.99	6.4	13.3	0.32	7.33	31.8	92	3.58	0.158	0.149	6.7	0.41	3080	898	172	57	C	S	0.3926	307.0	4.73	779	22.1	299.7	4.62	748	22.6	291.3	4.49	719	23.0	280.5	4.32
65	70	733	23.9	23.2	21.1	23.5	24.8	3.12	6.6	13.9	0.32	7.97	32.9	91	3.69	0.157	0.149	6.7	0.44	3173	898	173	58	C	S	0.4472	327.8	4.69	731	23.2	320.4	4.59	709	23.6	312.3	4.47	688	24.0	302.7	4.33
70	75	689	25.0	24.3	21.9	24.2	25.6	3.24	6.7	14.5	0.31	8.60	33.8	90	3.81	0.157	0.149	6.8	0.45	3250	898	172	59	C	S	0.5019	345.8	4.62	688	24.3	338.5	4.52	672	24.6	330.5	4.41	657	24.9	322.0	4.30
75	80	651	26.0	25.3	22.6	24.9	26.3	3.35	6.9	15.0	0.31	9.20	34.6	89	3.92	0.157	0.149	6.8	0.47	3316	898	172	60	C	S	0.5562	362.1	4.53	650	25.3	354.9	4.44	639	25.6	347.0	4.34	627	25.8	339.2	4.25
80	85	616	27.0	26.2	23.3	25.6	26.9	3.46	7.0	15.4	0.31	9.79	35.2	88	4.03	0.158	0.150	6.8	0.49	3372	898	171	60	C	S	0.6101	375.8	4.43	616	26.2	368.5	4.34	607	26.5	360.7	4.25	598	26.7	353.6	4.17
85	90	586	27.9	27.1	23.9	26.1	27.4	3.56	7.1	15.8	0.31	10.36	35.7	87	4.13	0.158	0.151	6.8	0.51	3421	898	170	61	C	S	0.6628	388.4	4.32	586	27.1	381.2	4.24	579	27.3	373.4	4.16	572	27.5	366.9	4.08
90	95	559	28.7	28.0	24.5	26.7	28.0	3.66	7.3	16.1	0.31	10.91	36.2	86	4.23	0.159	0.151	6.8	0.52	3464	898	169	61	C	S	0.7145	399.4	4.21	559	28.0	392.2	4.13	554	28.2	384.4	4.05	549	28.3	378.4	3.99
95	100	534	29.5	28.8	25.0	27.1	28.4	3.75	7.4	16.4	0.31	11.45	36.6	85	4.33	0.159	0.152	6.7	0.54	3503	898	168	61	C	S	0.7646	408.3	4.09	534	28.8	401.2	4.02	530	28.9	393.4	3.94	526	29.1	387.8	3.88
100	105	513	30.3	29.6	25.5	27.6	28.8	3.83	7.5	16.7	0.31	11.96	37.0	84	4.42	0.160	0.153	6.7	0.55	3538	898	167	61	C	S	0.8135	417.3	3.98	513	29.6	410.1	3.91	510	29.7	402.4	3.84	507	29.8	397.2	3.79
105	110	493	31.0	30.3	26.0	28.0	29.2	3.91	7.6	16.9	0.31	12.46	37.2	83	4.50	0.161	0.154	6.7	0.56	3570	898	166	61	C	S	0.8606	424.3	3.86	493	30.3	417.1	3.80	491	30.4	409.4	3.73	488	30.5	404.4	3.68
110	115	476	31.7	31.0	26.4	28.4	29.6	3.99	7.7	17.1	0.31	12.93	37.6	82	4.58	0.161	0.155	6.7	0.58	3599	898	165	62	C	S	0.9061	431.3	3.75	476	31.0	424.2	3.69	474	31.1	416.4	3.63	472	31.1	411.7	3.58
115	120	460	32.3	31.6	26.8	28.7	29.9	4.06	7.8	17.3	0.31	13.39	37.8	81	4.66	0.162	0.156	6.6	0.59	3628	898	164	62	C	S	0.9498	436.9	3.64	460	31.6	429.8	3.59	459	31.7	422.0	3.52	457	31.7	417.6	3.48
120	125	446	33.0	32.2	27.2	29.1	30.3	4.13	7.9	17.4	0.31	13.84	38.1	81	4.74	0.163	0.157	6.6	0.60	3654	898	163	62	C	S	0.9919	442.4	3.54	446	32.2	435.3	3.49	445	32.3	427.5	3.42	443	32.4	423.2	3.39
125	130	433	33.5	32.8	27.5	29.4	30.5	4.19	8.0	17.6	0.31	14.27	38.3	80	4.81	0.164	0.157	6.6	0.61	3680	898	163	62	C	S	1.0323	447.0	3.44	433	32.8	439.8	3.39	432	32.9	432.0	3.33	431	32.9	428.0	3.30
130	135	421	34.1	33.4	27.8	29.7	30.8	4.25	8.0	17.7	0.31	14.68	38.5	79	4.87	0.164	0.158	6.6	0.63	3705	898	162	62	C	S	1.0708	450.8	3.34	421	33.4	443.7	3.29	420	33.4	435.9	3.23	419	33.5	432.1	3.20
135	140	410	34.6	33.9	28.1	29.9	31.1	4.31	8.1	17.8	0.31	15.08	38.6	78	4.94	0.165	0.159	6.6	0.64	3729	898	161	62	C	S	1.1078	454.2	3.25	410	33.9	447.1	3.20	410	33.9	439.3	3.14	409	34.0	435.6	3.11
140	145	401	35.1	34.4	28.4	30.2	31.3	4.37	8.2	17.8	0.31	15.46	38.9	78	4.99	0.165	0.160	6.6	0.65	3753	898	160	62	C	S	1.1431	458.4	3.16	401	34.4	451.3	3.12	401	34.4	443.5	3.06	400	34.5	439.9	3.04
145	150	392	35.6	34.9	28.7	30.4	31.5	4.42	8.2	17.9	0.31	15.83	39.1	77	5.05	0.166	0.160	6.5	0.66	3777	898	160	62	C	S	1.1770	461.4	3.08	392	34.9	454.3	3.03	392	34.9	446.4	2.98	391	34.9	443.0	2.96
150	155	384	36.1	35.4	28.9	30.6	31.7	4.47	8.3	18.0	0.31	16.19	39.3	76	5.10	0.167	0.161	6.5	0.67	3800	898	159	62	C	S	1.2094	464.4	3.00	384	35.4	457.3	2.95	384	35.4	449.4	2.90	383	35.4	446.0	2.88
155	160	376	36.5	35.8	29.2	30.8	31.9	4.52	8.3	18.0	0.31	16.53	39.4	75	5.16	0.167	0.162	6.5	0.68	3823	898	159	62	C	S	1.2399	466.2	2.92	376	35.8	459.1	2.87	376	35.8	451.2	2.82	375	35.9	448.0	2.80
160	165	369	37.0	36.2	29.4	31.0	32.1	4.56	8.4	18.0	0.32	16.87	39.6	75	5.21	0.168	0.162	6.5	0.70	3846	898	158	62	C	S	1.2694	468.4	2.84	369	36.2	461.2	2.80	369	36.2	453.3	2.75	368	36.3	450.2	2.73
165	170	363	37.4	36.6	29.6	31.2	32.3	4.61	8.4	18.1	0.32	17.19	39.8	74	5.25	0.168	0.163	6.5	0.71	3869	898	158	62	C	S	1.2972	470.9	2.77	363	36.6	463.8	2.73	363	36.6	455.8	2.68	363	36.6	452.8	2.67
170	175	357	37.7	37.0	29.8	31.4	32.4	4.65	8.5	18.1	0.32	17.51	40.0	74	5.29	0.168	0.163	6.5	0.72	3891	898	158	62	C	S	1.3238	472.6	2.70	357	37.0	465.5	2.66	357	37.0	457.5	2.62	357	37.0	454.6	2.60
175	180	352	38.1	37.4	30.0	31.6	32.6	4.69	8.5	18.1	0.32	17.81	40.2	73	5.33	0.169	0.164	6.5	0.73	3914	898	158	63	C	S	1.3494	475.0	2.64	352	37.4	467.8	2.60	352	37.4	459.8	2.56	352	37.4	456.9	2.54
180	185	347	38.5	37.7	30.2	31.7	32.7	4.73	8.5	18.1	0.32	18.10	40.4	72	5.37	0.169	0.164	6.5	0.74	3937	898	157	63	C	S	1.3735	476.6	2.58	347	37.7	469.4	2.54	347	37.7	461.4	2.50	347	37.7	458.6	2.48
SI = 22 m Initial Density = 2000 stems/ha																																							
5	10	1969	2.8	2.6	2.9	3.7	3.9	0.80	2.2	0.6	0.77	0.50	1.2	123	2.25	0.616	0.583	0.7	0.01	384	1024	30	10	A	S	0.0009	1.8	0.18	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	1899	5.4	5.0	5.0	6.3	6.7	1.04	3.2	1.8	0.62	0.88	4.3	108	2.29	0.365	0.342	1.9	0.05	716	1024	62	17	A	S	0.0062	11.8	0.79	140	8.7	2.0	0.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	1801	7.7	7.2	7.0	8.8	9.5	1.28	3.8	3.3	0.53	1.35	8.4	105	2.36	0.267	0.249	3.0	0.09	1102	1024	92	24	A	S	0.0179	32.2	1.62	833	9.5	20.2	1.02	55	13.1	2.9	0.15	9	14.7	0.5	0.03
20	25	1685	9.8	9.3	9.0	11.1	12.0	1.51	4.2	4.8	0.46	1.90	12.6	104	2.44	0.219	0.203	4.0	0.14	1493	1024	118	32	B	S	0.0366	61.6	2.48	1222	10.7	50.4	2.03	314	13.8	22.8	0.92	119	15.3	9.5	0.38
25	30	1561	11.7	11.1	10.9	13.2	14.2	1.73	4.6	6.3	0.41	2.48	16.8	102	2.53	0.192	0.178	4.9	0.19	1857	1024	139	39	B	S	0.0618	96.5	3.23	1334	12.1	86.3	2.89	623	14.6	59.3	1.99	353	15.9	36.3	1.22
30	35	1438	13.5	12.9	12.5	15.0	16.2	1.93	4.9	7.6	0.38	3.09	20.5	101	2.64	0.175	0.163	5.6	0.24	2179	1024	155	44	B	S	0.0930	133.8	3.84	1321	13.5	124.4	3.57	834	15.6	101.8	2.92	584	16.7	75.8	2.17
35	40	1320	15.1	14.5	14.1	16.7	17.9	2.12	5.1	8.8	0.36	3.73	23.7	100	2.75	0.165	0.153	6.1	0.29	2453	1024	166	49	B	S	0.1296	171.1	4.29	1257	14.9	162.2	4.07	939	16.6	144.1	3.61	742	17.6	119.0	2.99
40	45	1211	16.7	16.0	15.5	18.1	19.5	2.30	5.3	9.9	0.35	4.37	26.5	98	2.87	0.158	0.148	6.5	0.32	2682	1024	174	53	C	S	0.1707	206.7	4.61	1176	16.3	198.1	4.42	970	17.7	183.3	4.09	826	18.5	161.1	3.59
45	50	1112	18.1	17.5	16.8	19.4	20.8	2.46	5.6	10.9	0.33	5.02	28.8	97	3.00	0.154	0.144	6.8	0.36	2870	1024	179	56	C	S	0.2155	239.6	4.80	1092	17.7	231.2	4.64	958	18.8	218.8	4.39	855	19.5	199.4	4.00
50	55	1024	19.5	18.8	17.9	20.6	22.0	2.62	5.8	11.8	0.33	5.67	30.7	96	3.13	0.152	0.142	6.9	0.39	3023	1024	183	58	C	S	0.2632	269.5	4.91	1012	19.0	261.3	4.76	923	19.9	250.3	4.56	851	20.4	233.7	4.26
55	60	945	20.8	20.1	19.0	21.6	23.1	2.77	6.0	12.5	0.32	6.31	32.2	95	3.25	0.150	0.141	7.1	0.41	3147	1024	184	60	C	S	0.3131	295.9	4.94	938	20.2	287.9	4.81	878	20.9	277.9	4.64	827	21.4	263.5	4.40
60	65	876	22.0	21.3	19.9	22.6	24.0	2.91	6.1	13.2	0.31	6.95	33.4	93	3.38	0.150	0.141	7.1	0.43	3247	1024	184	61	C	S	0.3646	319.4	4.92	872	21.4	311.5	4.80	831	22.0	302.2	4.66	794	22.4	289.7	4.47
65	70	815	23.2	22.5	20.8	23.4	24.8	3.04	6.3	13.8	0.31	7.57	34.4	92	3.50	0.150	0.141	7.1	0.46	3328	1024	184	62	C	S	0.4172	340.0	4.87	812	22.6	332.1	4.75	784	23.0	323.2	4.63	757	23.3	312.2	4.47
70	75	762	24.3	23.6	21.6	24.2	25.6	3.16	6.5	14.4	0.31	8.19	35.3	91	3.62	0.150	0.142	7.2	0.47	3395	1024	183	62	C	S	0.4701	358.2	4.78	760	23.6	350.4	4.68	740	24.0	341.8	4.57	720	24.3	332.0	4.43
75	80	715	25.3	24.6	22.4	24.8	26.3	3.28	6.7	14.9	0.31	8.78	36.0	90	3.74	0.151	0.142	7.1	0.49	3451	1024	182	63	C	S	0.5229	373.9	4.68	714	24.6	366.2	4.59	699	24.9	357.7	4.48	684	25.2	348.9	4.37
80	85	673	26.3	25.6	23.0	25.5	26.9	3.38	6.8	15.3	0.30	9.37	36.5	89	3.85	0.151	0.143	7.1	0.51	3497	1024	180	63	C	S	0.5753	387.2	4.56	672	25.6	379.6	4.47	661	25.8	371.2	4.37	650	26.1	363.3	4.28
85	90	636	27.2	26.5	23.7	26.0	27.4	3.49	7.0	15.7	0.30	9.93	36.9	88	3.97	0.152	0.144	7.1	0.52	3536	1024	179	63	C	S	0.6270	398.8	4.44	636	26.5	391.2	4.35	627	26.7	383.0	4.26	619	26.9	375.8	4.18
90	95	604	28.1	27.3	24.2	26.6	28.0	3.58	7.1	16.0	0.30	10.48	37.3	87	4.07	0.153	0.146	7.0	0.53	3570	1024	177	63	C	S	0.6778	409.4	4.32	604	27.3	401.9	4.24	598	27.5	393.7	4.15	591	27.7	387.1	4.08
95	100	575	28.9	28.2	24.8	27.0	28.4	3.67	7.2	16.3	0.30	11.01	37.6	86	4.17	0.154	0.147	7.0	0.55	3600	1024	176	63	C	S	0.7273	418.2	4.19	575	28.2	410.7	4.11	570	28.3	402.6	4.03	565	28.4	396.5	3.97
100	105	550	29.6	28.9	25.3	27.5	28.8	3.76	7.3	16.6	0.30	11.53	38.0	85	4.26	0.155	0.148	7.0	0.56	3627	1024	174	63	C	S	0.7756	426.6	4.07	550	28.9	419.1	4.00	546	29.1	411.0	3.92	542	29.2	405.3	3.86
105	110	527	30.4	29.7	25.7	27.9	29.2	3.84	7.4	16.8	0.30	12.02	38.2	84	4.36	0.156	0.149	6.9	0.57	3652	1024	173	63	C	S	0.8224	433.4	3.94	527	29.7	426.0	3.88	524	29.8	417.9	3.80	521	29.9	412.6	3.76
110	115	506	31.1	30.4	26.1	28.3	29.6	3.92	7.6	17.0	0.30	12.50	38.4	83	4.45	0.157	0.150	6.9	0.58	3675	1024	171	63	C	S	0.8674	438.9	3.82	506	30.4	431.6	3.76	504	30.4	423.6	3.69	501	30.5	418.5	3.64
115	120	488	31.7	31.0	26.5	28.6	29.9	3.99	7.6	17.2	0.31	12.96	38.6	82	4.53	0.158	0.151	6.9	0.60	3697	1024	170	63	C	S	0.9111	444.6	3.71	488	31.0	437.3	3.65	486	31.1	429.3	3.58	484	31.2	424.5	3.54
120	125	471	32.4	31.6	26.9	29.0	30.3	4.06	7.7	17.4	0.31	13.41	38.8	81	4.61	0.159	0.152	6.8	0.61	3718	1024	168	63	C	S	0.9531	448.9	3.60	471	31.6	441.6	3.54	470	31.7	433.6	3.47	468	31.8	429.1	3.44
125	130	457	33.0	32.2	27.2	29.3	30.5	4.13	7.8	17.5	0.31	13.84	39.0	81	4.68	0.160	0.153	6.8	0.62	3738	1024	167	63	C	S	0.9937	454.1	3.50	457	32.2	446.8	3.44	456	32.3	438.8	3.38	454	32.4	434.4	3.35
130	135	443	33.5	32.8	27.6	29.6	30.8	4.19	7.9	17.6	0.31	14.26	39.1	80	4.75	0.161	0.154	6.8	0.63	3758	1024	166	63	C	S	1.0323	457.3	3.39	443	32.8	450.0	3.34	442	32.9	442.0	3.28	441	32.9	438.0	3.25
135	140	431	34.1	33.3	27.9	29.8	31.1	4.25	8.0	17.7	0.31	14.66	39.3	79	4.82	0.161	0.155	6.7	0.64	3778	1024	165	63	C	S	1.0694	460.9	3.30	431	33.3	453.7	3.24	430	33.4	445.7	3.19	429	33.4	441.7	3.16
140	145	420	34.6	33.9	28.1	30.1	31.3	4.31	8.0	17.8	0.31	15.04	39.5	78	4.88	0.162	0.156	6.7	0.65	3797	1024	164	63	C	S	1.1050	464.1	3.20	420	33.9	456.9	3.15	420	33.9	448.9	3.10	418	34.0	445.1	3.07
145	150	409	35.1	34.4	28.4	30.3	31.5	4.36	8.1	17.9	0.31	15.42	39.5	78	4.94	0.163	0.157	6.7	0.66	3817	1024	163	63	C	S	1.1391	465.9	3.11	409	34.4	458.6	3.06	409	34.4	450.7	3.01	408	34.4	447.0	2.98
150	155	400	35.6	34.8	28.7	30.5	31.7	4.41	8.2	17.9	0.31	15.78	39.7	77	5.00	0.164	0.158	6.7	0.67	3836	1024	163	63	C	S	1.1715	468.6	3.03	400	34.8	461.4	2.98	400	34.8	453.4	2.93	399	34.9	449.9	2.91
155	160	392	36.0	35.3	28.9	30.8	31.9	4.46	8.2	18.0	0.31	16.13	39.9	76	5.05	0.164	0.158	6.7	0.68	3856	1024	162	63	C	S	1.2028	471.5	2.95	392	35.3	464.3	2.90	392	35.3	456.2	2.85	391	35.3	452.8	2.83
160	165	384	36.4	35.7	29.1	30.9	32.1	4.51	8.3	18.0	0.31	16.47	40.1	75	5.10	0.165	0.159	6.6	0.69	3875	1024	162	63	C	S	1.2326	473.3	2.87	384	35.7	466.0	2.83	384	35.7	458.0	2.78	383	35.8	454.7	2.76
165	170	377	36.9	36.1	29.3	31.1	32.3	4.55	8.3	18.0	0.31	16.80	40.2	75	5.15	0.165	0.160	6.6	0.70	3895	1024	161	63	C	S	1.2607	475.3	2.80	377	36.1	468.1	2.76	377	36.1	460.0	2.71	376	36.2	456.8	2.69
170	175	370	37.3	36.5	29.5	31.3	32.4	4.60	8.4	18.0	0.31	17.12	40.3	74	5.20	0.166	0.160	6.6	0.71	3915	1024	161	63	C	S	1.2878	476.5	2.72	370	36.5	469.3	2.68	370	36.5	461.2	2.64	370	36.5	458.1	2.62

Table A120. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 22 m Initial Density = 3000 stems/ha																																								
5	10	2938	2.5	2.3	2.8	3.6	3.9	0.77	2.0	0.7	0.74	0.47	1.4	133	1.84	0.506	0.477	0.9	0.02	533	1297	39	14	A	S	0.0007	2.1	0.21	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	2802	4.9	4.6	4.8	6.3	6.7	0.99	2.9	1.9	0.60	0.79	5.2	114	1.89	0.302	0.281	2.4	0.06	937	1297	80	22	A	S	0.0048	13.5	0.91	85	8.5	1.1	0.07	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	2613	7.0	6.6	6.8	8.8	9.5	1.20	3.4	3.3	0.50	1.19	10.0	110	1.96	0.223	0.207	3.8	0.11	1393	1297	118	31	B	S	0.0141	36.9	1.86	921	9.1	19.2	0.97	24	12.9	1.2	0.06	2	14.3	0.1	0.01
20	25	2397	8.9	8.4	8.8	11.1	12.0	1.42	3.8	4.8	0.43	1.66	14.9	108	2.04	0.185	0.170	5.0	0.17	1839	1297	148	40	B	S	0.0292	69.9	2.81	1547	10.1	53.3	2.14	249	13.4	16.8	0.68	68	15.0	5.1	0.21
25	30	2175	10.7	10.2	10.6	13.1	14.2	1.62	4.1	6.2	0.39	2.17	19.6	106	2.14	0.163	0.151	6.0	0.23	2238	1297	172	47	B	S	0.0499	108.5	3.63	1753	11.3	94.0	3.15	628	14.1	54.3	1.82	294	15.5	27.8	0.93
30	35	1961	12.4	11.8	12.2	14.9	16.2	1.81	4.4	7.5	0.36	2.71	23.6	105	2.26	0.151	0.139	6.7	0.28	2578	1297	189	53	C	S	0.0761	149.2	4.28	1745	12.6	136.2	3.91	938	14.9	102.1	2.93	582	16.2	68.1	1.95
35	40	1764	14.0	13.4	13.7	16.6	17.9	1.99	4.6	8.7	0.34	3.28	27.1	103	2.38	0.144	0.133	7.2	0.33	2856	1297	200	58	C	S	0.1072	189.1	4.74	1649	13.9	177.3	4.45	1112	15.8	150.3	3.77	811	16.9	116.0	2.91
40	45	1587	15.5	14.9	15.1	18.0	19.5	2.16	4.9	9.7	0.33	3.87	29.9	101	2.51	0.139	0.129	7.6	0.37	3078	1297	206	61	C	S	0.1428	226.6	5.05	1523	15.3	215.6	4.81	1175	16.8	194.3	4.33	947	17.7	163.3	3.64
45	50	1432	16.9	16.3	16.3	19.3	20.8	2.33	5.1	10.7	0.32	4.47	32.2	100	2.64	0.137	0.127	7.8	0.40	3251	1297	210	64	C	S	0.1821	260.8	5.23	1396	16.6	250.5	5.02	1169	17.8	233.3	4.68	1005	18.6	206.4	4.14
50	55	1297	18.3	17.6	17.5	20.4	22.0	2.48	5.3	11.6	0.31	5.07	34.0	99	2.78	0.136	0.126	8.0	0.43	3385	1297	211	66	C	S	0.2247	291.4	5.31	1276	17.8	281.5	5.13	1127	18.8	267.1	4.87	1011	19.5	244.3	4.45
55	60	1180	19.5	18.9	18.5	21.5	23.1	2.63	5.5	12.3	0.31	5.68	35.4	97	2.91	0.136	0.126	8.0	0.45	3489	1297	211	67	C	S	0.2697	318.3	5.32	1167	19.0	308.8	5.16	1068	19.8	296.2	4.95	986	20.4	276.8	4.62
60	65	1079	20.8	20.1	19.4	22.4	24.0	2.76	5.7	13.0	0.30	6.28	36.5	96	3.04	0.136	0.127	8.0	0.48	3567	1297	209	68	C	S	0.3167	341.7	5.27	1071	20.2	332.5	5.13	1004	20.9	321.2	4.95	946	21.3	304.6	4.70
65	70	991	21.9	21.2	20.3	23.2	24.8	2.89	5.9	13.7	0.30	6.88	37.3	95	3.18	0.137	0.128	8.0	0.49	3627	1297	207	68	C	S	0.3650	361.7	5.18	986	21.3	352.8	5.05	940	21.8	342.3	4.90	898	22.3	328.0	4.69
70	75	916	23.0	22.3	21.1	24.0	25.6	3.02	6.1	14.2	0.30	7.46	38.0	93	3.30	0.138	0.129	7.9	0.51	3673	1297	205	68	C	S	0.4142	379.4	5.07	913	22.4	370.7	4.95	880	22.8	360.7	4.82	849	23.2	348.1	4.65
75	80	850	24.0	23.3	21.8	24.7	26.3	3.13	6.3	14.7	0.30	8.04	38.5	92	3.43	0.139	0.131	7.9	0.52	3708	1297	202	68	C	S	0.4638	394.2	4.94	848	23.4	385.6	4.83	825	23.7	376.1	4.71	802	24.0	365.0	4.57
80	85	793	25.0	24.3	22.5	25.3	26.9	3.24	6.4	15.1	0.30	8.61	38.9	91	3.55	0.140	0.132	7.8	0.53	3735	1297	199	68	C	S	0.5132	407.0	4.80	792	24.3	398.6	4.70	775	24.6	389.4	4.59	757	24.9	379.5	4.47
85	90	743	25.9	25.2	23.1	25.9	27.4	3.35	6.6	15.5	0.30	9.16	39.2	90	3.67	0.142	0.134	7.7	0.55	3756	1297	196	68	C	S	0.5624	417.9	4.65	742	25.2	409.6	4.56	729	25.5	400.6	4.46	716	25.7	391.7	4.36
90	95	700	26.8	26.1	23.7	26.4	28.0	3.44	6.7	15.9	0.30	9.69	39.5	89	3.78	0.143	0.135	7.6	0.56	3773	1297	193	68	C	S	0.6111	427.8	4.51	700	26.1	419.6	4.42	690	26.3	410.7	4.33	680	26.5	402.7	4.24
95	100	661	27.6	26.9	24.2	26.9	28.4	3.54	6.9	16.2	0.30	10.21	39.6	88	3.89	0.145	0.137	7.5	0.57	3788	1297	190	68	C	S	0.6587	435.4	4.36	661	26.9	427.4	4.28	653	27.1	418.7	4.19	645	27.3	411.2	4.12
100	105	628	28.4	27.7	24.7	27.3	28.8	3.63	7.0	16.5	0.30	10.72	39.9	87	3.99	0.146	0.138	7.5	0.58	3800	1297	188	67	C	S	0.7056	443.1	4.23	628	27.7	435.1	4.15	622	27.9	426.5	4.07	616	28.0	419.6	4.00
105	110	598	29.2	28.5	25.2	27.7	29.2	3.71	7.1	16.7	0.30	11.21	40.0	86	4.09	0.148	0.140	7.4	0.59	3811	1297	185	67	C	S	0.7510	449.1	4.09	598	28.5	441.2	4.02	593	28.6	432.7	3.94	588	28.7	426.3	3.88
110	115	571	29.9	29.2	25.6	28.1	29.6	3.79	7.3	16.9	0.30	11.69	40.1	85	4.18	0.149	0.141	7.3	0.60	3821	1297	183	67	C	S	0.7953	454.1	3.95	571	29.2	446.3	3.89	567	29.3	437.8	3.81	563	29.4	431.9	3.76
115	120	547	30.6	29.8	26.0	28.4	29.9	3.86	7.4	17.1	0.30	12.15	40.1	84	4.28	0.150	0.143	7.3	0.61	3831	1297	181	66	C	S	0.8382	458.5	3.83	547	29.8	450.7	3.76	544	30.0	442.3	3.69	541	30.0	436.8	3.64
120	125	526	31.2	30.5	26.4	28.8	30.3	3.93	7.5	17.3	0.30	12.59	40.2	83	4.36	0.152	0.144	7.2	0.62	3841	1297	179	66	C	S	0.8797	462.7	3.71	526	30.5	455.0	3.64	524	30.6	446.6	3.58	521	30.7	441.4	3.54
125	130	506	31.8	31.1	26.7	29.1	30.5	4.00	7.6	17.4	0.30	13.03	40.3	82	4.45	0.153	0.146	7.1	0.62	3851	1297	177	66	C	S	0.9196	465.3	3.58	506	31.1	457.7	3.52	504	31.2	449.4	3.46	502	31.3	444.5	3.42
130	135	489	32.4	31.7	27.0	29.4	30.8	4.07	7.7	17.5	0.30	13.44	40.4	81	4.52	0.154	0.147	7.1	0.63	3861	1297	175	66	C	S	0.9583	468.6	3.47	489	31.7	461.0	3.42	488	31.7	452.7	3.36	486	31.8	448.0	3.32
135	140	474	33.0	32.2	27.3	29.6	31.1	4.13	7.7	17.6	0.30	13.85	40.5	81	4.59	0.155	0.148	7.0	0.64	3871	1297	174	66	C	S	0.9954	471.8	3.37	474	32.2	464.3	3.32	473	32.3	456.0	3.26	471	32.4	451.5	3.23
140	145	459	33.5	32.8	27.6	29.9	31.3	4.19	7.8	17.7	0.30	14.24	40.5	80	4.67	0.156	0.149	7.0	0.65	3882	1297	172	65	C	S	1.0309	473.2	3.27	459	32.8	465.7	3.21	458	32.8	457.5	3.16	457	32.9	453.2	3.13
145	150	446	34.0	33.3	27.9	30.1	31.5	4.24	7.9	17.8	0.31	14.62	40.5	79	4.74	0.157	0.150	7.0	0.66	3894	1297	171	65	C	S	1.0652	475.1	3.17	446	33.3	467.6	3.12	445	33.3	459.4	3.07	444	33.4	455.3	3.04
150	155	435	34.5	33.8	28.1	30.3	31.7	4.30	8.0	17.8	0.31	14.99	40.7	78	4.79	0.158	0.151	6.9	0.67	3906	1297	170	65	C	S	1.0982	477.7	3.08	435	33.8	470.2	3.04	435	33.8	462.0	2.98	433	33.9	458.1	2.96
155	160	424	35.0	34.2	28.4	30.5	31.9	4.35	8.0	17.9	0.31	15.34	40.8	78	4.86	0.159	0.152	6.9	0.68	3918	1297	169	65	C	S	1.1297	479.0	3.00	424	34.2	471.5	2.95	424	34.2	463.3	2.90	423	34.3	459.5	2.87
160	165	414	35.4	34.7	28.6	30.7	32.1	4.40	8.1	17.9	0.31	15.68	40.8	77	4.91	0.160	0.153	6.9	0.69	3932	1297	168	65	C	S	1.1599	480.2	2.91	414	34.7	472.7	2.87	414	34.7	464.5	2.82	413	34.8	460.9	2.80
165	170	405	35.9	35.1	28.8	30.9	32.3	4.45	8.1	17.9	0.31	16.02	40.9	76	4.97	0.161	0.154	6.8	0.69	3945	1297	167	65	C	S	1.1886	481.4	2.83	405	35.1	474.0	2.79	405	35.1	465.8	2.74	404	35.2	462.2	2.72
170	175	397	36.3	35.5	29.0	31.1	32.4	4.49	8.2	18.0	0.31	16.34	41.0	75	5.02	0.161	0.155	6.8	0.70	3959	1297	166	65	C	S	1.2164	482.9	2.76	397	35.5	475.4	2.72	397	35.5	467.2	2.67	396	35.6	463.8	2.65
175	180	389	36.7	35.9	29.2	31.3	32.6	4.53	8.2	18.0	0.31	16.66	41.1	75	5.07	0.162	0.156	6.8	0.71	3974	1297	165	65	C	S	1.2427	483.4	2.69	389	35.9	476.0	2.65	389	35.9	467.7	2.60	388	36.0	464.4	2.58
180	185	382	37.1	36.3	29.4	31.4	32.7	4.58	8.3	18.0	0.31	16.96	41.2	74	5.12	0.163	0.156	6.8	0.72	3989	1297	165	65	C	S	1.2678	484.3	2.62	382	36.3	476.9	2.58	382	36.3	468.7	2.54	381	36.4	465.4	2.52
SI = 22 m Initial Density = 4000 stems/ha																																								
5	10	3903	2.3	2.1	2.7	3.6	3.9	0.76	1.9	0.7	0.73	0.45	1.6	140	1.60	0.440	0.414	1.1	0.02	674	1534	48	18	A	S	0.0006	2.3	0.23	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	3688	4.5	4.2	4.7	6.2	6.7	0.95	2.7	1.9	0.58	0.73	5.9	119	1.65	0.264	0.245	2.8	0.06	1137	1534	96	27	A	S	0.0040	14.9	1.00	49	8.4	0.6	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	3397	6.5	6.1	6.7	8.7	9.5	1.15	3.2	3.3	0.48	1.09	11.2	114	1.72	0.197	0.181	4.4	0.13	1645	1534	140	37	B	S	0.0119	40.3	2.03	930	8.8	17.5	0.88	11	12.7	0.5	0.03	0	0.0	0.0	0.00
20	25	3071	8.3	7.9	8.6	11.0	12.0	1.35	3.5	4.8	0.42	1.51	16.7	111	1.80	0.164	0.151	5.8	0.20	2129	1534	174	46	B	S	0.0247	75.9	3.05	1778	9.7	54.1	2.18	187	13.2	12.1	0.49	38	14.8	2.7	0.11
25	30	2744	10.0	9.5	10.3	13.1	14.2	1.54	3.8	6.1	0.38	1.97	21.7	109	1.91	0.146	0.134	6.9	0.26	2550	1534	199	54	C	S	0.0427	117.1	3.92	2094	10.8	98.3	3.29	588	13.8	47.8	1.60	231	15.3	20.7	0.69
30	35	2437	11.7	11.1	11.9	14.9	16.2	1.73	4.1	7.4	0.35	2.47	26.1	107	2.03	0.136	0.125	7.6	0.32	2898	1534	216	60	C	S	0.0656	159.9	4.59	2103	12.0	143.6	4.12	976	14.5	98.5	2.83	543	15.8	59.5	1.71
35	40	2162	13.2	12.6	13.4	16.5	17.9	1.90	4.3	8.5	0.33	3.00	29.6	105	2.15	0.130	0.120	8.2	0.36	3173	1534	227	65	C	S	0.0932	201.5	5.05	1985	13.3	187.1	4.69	1218	15.4	151.1	3.79	827	16.5	109.5	2.75
40	45	1920	14.7	14.1	14.8	17.9	19.5	2.07	4.6	9.6	0.32	3.55	32.5	104	2.28	0.127	0.117	8.5	0.40	3385	1534	232	68	C	S	0.1251	240.2	5.35	1823	14.5	227.1	5.06	1321	16.2	199.2	4.44	1014	17.2	160.7	3.58
45	50	1712	16.1	15.5	16.0	19.2	20.8	2.23	4.8	10.5	0.31	4.11	34.7	102	2.42	0.126	0.116	8.7	0.44	3545	1534	234	70	D	S	0.1607	275.2	5.52	1657	15.8	263.1	5.28	1331	17.2	241.2	4.84	1105	18.0	207.6	4.16
50	55	1534	17.4	16.8	17.1	20.3	22.0	2.38	5.0	11.4	0.30	4.68	36.4	101	2.55	0.126	0.116	8.7	0.46	3663	1534	234	72	D	S	0.1996	306.2	5.58	1502	17.0	294.9	5.37	1288	18.1	277.0	5.05	1127	18.9	248.5	4.53
55	60	1382	18.7	18.0	18.1	21.3	23.1	2.52	5.2	12.1	0.30	5.25	37.8	99	2.69	0.126	0.117	8.7	0.49	3749	1534	232	73	D	S	0.2411	333.2	5.57	1362	18.2	322.4	5.39	1221	19.1	307.4	5.13	1106	19.7	283.3	4.73
60	65	1253	19.8	19.2	19.1	22.3	24.0	2.66	5.4	12.8	0.29	5.83	38.8	98	2.83	0.127	0.118	8.7	0.50	3811	1534	229	73	D	S	0.2847	356.7	5.50	1241	19.3	346.4	5.34	1145	20.1	333.2	5.14	1064	20.6	312.8	4.82
65	70	1142	21.0	20.3	19.9	23.1	24.8	2.79	5.6	13.5	0.29	6.40	39.5	96	2.96	0.128	0.119	8.6	0.52	3854	1534	225	73	D	S	0.3298	376.6	5.39	1134	20.4	366.7	5.25	1069	21.0	354.8	5.08	1010	21.5	337.3	4.83
70	75	1047	22.1	21.4	20.7	23.8	25.6	2.91	5.8	14.0	0.29	6.96	40.0	95	3.09	0.130	0.121	8.5	0.53	3883	1534	221	73	D	S	0.3759	393.6	5.26	1042	21.5	384.1	5.13	996	22.0	373.0	4.98	954	22.4	357.9	4.78
75	80	966	23.1	22.4	21.4	24.5	26.3	3.03	6.0	14.5	0.29	7.52	40.5	94	3.22	0.131	0.122	8.4	0.55	3903	1534	217	73	D	S	0.4228	408.4	5.11	963	22.5	399.2	5.00	930	22.9	388.7	4.87	899	23.2	375.5	4.70
80	85	895	24.1	23.4	22.1	25.1	26.9	3.14	6.2	15.0	0.29	8.07	40.7	93	3.34	0.133	0.124	8.3	0.56	3916	1534	213	72	D	S	0.4698	420.5	4.95	893	23.4	411.5	4.85	869	23.8	401.5	4.73	846	24.1	389.8	4.59
85	90	834	25.0	24.3	22.7	25.7	27.4	3.24	6.3	15.4	0.29	8.60	40.9	92	3.46	0.135	0.126	8.2	0.57	3924	1534	209	72	D	S	0.5169	431.1	4.80	833	24.3	422.2	4.70	815	24.6	412.5	4.59	797	24.9	402.1	4.47
90	95	781	25.9	25.2	23.3	26.2	28.0	3.34	6.5	15.7	0.29	9.13	41.1	90	3.58	0.136	0.128	8.1	0.58	3928	1534	205	71	D	S	0.5635	440.1	4.64	780	25.2	431.4	4.55	767	25.5	422.0	4.45	753	25.7	412.6	4.35
95	100	735	26.7	26.0	23.8	26.7	28.4	3.44	6.6	16.0	0.29	9.64	41.2	89	3.69	0.138	0.130	8.0	0.58	3931	1534	202	71	D	S	0.6095	448.0	4.49	734	26.0	439.5	4.40	724	26.3	430.2	4.31	714	26.4	421.7	4.22
100	105	694	27.5	26.8	24.3	27.1	28.8	3.52	6.8	16.3	0.29	10.14	41.2	88	3.80	0.140	0.132	7.9	0.59	3932	1534	198	70	D	S	0.6548	454.4	4.33	694	26.8	446.0	4.25	686	27.0	436.9	4.17	677	27.2	429.0	4.09
105	110	658	28.3	27.6	24.7	27.5	29.2	3.61	6.9	16.6	0.29	10.62	41.3	87	3.90	0.142	0.133	7.8	0.60	3933	1534	195	70	C	S	0.6989	459.9	4.19	658	27.6	451.6	4.11	652	27.7	442.7	4.03	645	27.9	435.5	3.96
110	115	626	29.0	28.3	25.1	27.9	29.6	3.69	7.0	16.8	0.29	11.09	41.3	86	4.00	0.143	0.135	7.7	0.61	3933	1534	192	69	C	S	0.7422	464.6	4.04	626	28.3	456.4	3.97	621	28.4	447.5	3.90	616	28.5	440.9	3.84
115	120	597	29.7	29.0	25.5	28.3	29.9	3.76	7.1	17.0	0.29	11.54	41.3	85	4.09	0.145	0.137	7.6	0.61	3934	1534	189	69	C	S	0.7841	468.1	3.91	597	29.0	460.0	3.84	593	29.1	451.3	3.77	589	29.2	445.1	3.71
120	125	572	30.3	29.6	25.9	28.6	30.3	3.84	7.3	17.1	0.29	11.99	41.3	84	4.18	0.146	0.138	7.5	0.62	3936	1534	187	69	C	S	0.8248	471.8	3.78	572	29.6	463.8	3.71	569	29.7	455.1	3.64	565	29.8	449.3	3.60
125	130	549	31.0	30.2	26.3	28.9	30.5	3.91	7.4	17.3	0.30	12.42	41.3	84	4.27	0.148	0.140	7.4	0.63	3938	1534	185	68	C	S	0.8643	474.5	3.65	549	30.2	466.6	3.59	547	30.3	458.0	3.53	543	30.4	452.4	3.48
130	135	528	31.6	30.8	26.6	29.2	30.8	3.97	7.5	17.4	0.30	12.83	41.3	83	4.35	0.149	0.141	7.3	0.64	3940	1534	182	68	C	S	0.9025	476.5	3.53	528	30.8	468.6	3.47	526	30.9	460.1	3.41	523	31.0	454.9	3.37
135	140	510	32.1	31.4	26.9	29.5	31.1	4.04	7.5	17.5	0.30	13.24	41.3	82	4.43	0.150	0.143	7.3	0.64	3944	1534	180	68	C	S	0.9392	479.0	3.42	510	31.4	471.2	3.37	508	31.5	462.7	3.31	506	31.5	457.8	3.27
140	145	493	32.7	31.9	27.2	29.7	31.3	4.10	7.6	17.6	0.30	13.63	41.3	81	4.50	0.152	0.144	7.2	0.65	3949	1534	178	67	C	S	0.9746	480.5	3.32	493	31.9	472.8	3.26	492	32.0	464.3	3.21	490	32.1	459.6	3.17
145	150	478	33.2	32.5	27.4	30.0	31.5	4.15	7.7	17.7	0.30	14.01	41.4	80	4.57	0.153	0.145	7.2	0.66	3954	1534	177	67	C	S	1.0088	482.2	3.22	478	32.5	474.5	3.17	477	32.5	466.1	3.11	475	32.6	461.6	3.08
150	155	464	33.7	33.0	27.7	30.2	31.7	4.21	7.8	17.7	0.30	14.37	41.4	79	4.64	0.154	0.146	7.1	0.67	3960	1534	175	67	C	S	1.0416	483.3	3.12	464	33.0	475.7	3.07	463	33.0	467.2	3.02	462	33.1	463.0	2.99
155	160	451	34.2	33.4	27.9	30.4	31.9	4.26	7.9	17.8	0.30	14.73	41.4	79	4.71	0.155	0.148	7.1	0.67	3968	1534	174	66	C	S	1.0732	484.0	3.03	451	33.4	476.4	2.98	450	33.5	468.0	2.93	449	33.5	463.9	2.90
160	165	440	34.6	33.9	28.2	30.6	32.1	4.31	7.9	17.8	0.31	15.08	41.5	78	4.77	0.156	0.148	7.0	0.68	3976	1534	173	66	C	S	1.1034	485.5	2.94	440	33.9	477.9	2.90	440	33.9	469.6	2.85	438	34.0	465.6	2.82
165	170	429	35.1	34.3	28.4	30.8	32.3	4.36	8.0	17.8	0.31	15.41	41.5	77	4.83	0.157	0.150	7.0	0.69	3984	1534	171	66	C	S	1.1324	485.8	2.86	429	34.3	478.3	2.82	429	34.3	469.9	2.77	428	34.4	466.1	2.74
170	175	419	35.5	34.8	28.6	30.9	32.4	4.41	8.0	17.9	0.31	15.74	41.5	76	4.89	0.158	0.151	7.0	0.69	3994	1534	170	66	C	S	1.1604	486.2	2.78	419	34.8	478.6	2.74	419	34.8	470.3	2.69	418	34.8	466.6	2.67
175	180	410	35.9	35.2	28.8	31.1	32.6	4.45	8.1	17.9	0.31	16.06	41.5	76	4.94	0.159	0.151	6.9	0.70	4004	1534	169	66	C	S	1.1868	486.6	2.71	410	35.2	479.1	2.66	410	35.2	470.8	2.62	409	35.2	467.2	2.60
180	185	402	36.3	35.6	29.0	31.3	32.7	4.49	8.1	17.9	0.31	16.36	41.6	75	4.99	0.159	0.152	6.9	0.71	4015	1534	168	66	C	S	1.2124	487.4	2.64	402	35.6	479.9	2.60	402	35.6	471.6	2.55	401	35.6	468.1	2.53

Table A121. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 22 m Initial Density = 5000 stems/ha																																								
5	10	4863	2.2	2.0	2.7	3.6	3.9	0.75	1.8	0.7	0.71	0.44	1.8	146	1.43	0.395	0.371	1.2	0.02	810	1749	56	21	A	S	0.0005	2.5	0.25	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	4562	4.3	4.0	4.6	6.2	6.7	0.93	2.5	1.9	0.56	0.69	6.5	123	1.48	0.238	0.221	3.1	0.07	1322	1749	111	32	B	S	0.0035	16.0	1.08	28	8.3	0.3	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	4159	6.1	5.8	6.6	8.7	9.5	1.12	3.0	3.3	0.47	1.02	12.3	117	1.55	0.178	0.164	5.0	0.14	1872	1749	159	42	B	S	0.0104	43.1	2.17	898	8.6	15.7	0.79	5	12.6	0.2	0.01	0	0.0	0.0	0.00
20	25	3717	7.9	7.5	8.4	11.0	12.0	1.31	3.3	4.7	0.41	1.40	18.2	114	1.64	0.149	0.137	6.5	0.22	2383	1749	197	52	C	S	0.0217	80.6	3.24	1942	9.4	53.8	2.16	136	13.1	8.5	0.34	21	14.7	1.5	0.06
25	30	3282	9.6	9.1	10.1	13.0	14.2	1.49	3.6	6.0	0.37	1.83	23.5	111	1.75	0.134	0.123	7.6	0.28	2819	1749	223	60	C	S	0.0377	123.7	4.14	2377	10.5	100.7	3.37	532	13.6	41.5	1.39	178	15.1	15.4	0.52
30	35	2882	11.1	10.6	11.7	14.8	16.2	1.67	3.9	7.3	0.34	2.30	28.0	109	1.86	0.126	0.115	8.4	0.34	3169	1749	240	66	C	S	0.0583	168.0	4.82	2417	11.6	148.5	4.26	976	14.3	93.3	2.68	490	15.6	51.2	1.47
35	40	2529	12.6	12.1	13.2	16.4	17.9	1.84	4.1	8.4	0.32	2.80	31.6	107	1.99	0.121	0.111	8.9	0.39	3438	1749	250	71	D	S	0.0834	210.8	5.29	2283	12.8	193.9	4.86	1282	15.0	149.2	3.74	814	16.2	101.8	2.55
40	45	2225	14.1	13.5	14.5	17.8	19.5	2.00	4.3	9.4	0.31	3.31	34.5	105	2.12	0.119	0.109	9.2	0.43	3640	1749	254	74	D	S	0.1125	250.3	5.58	2090	14.0	235.3	5.24	1428	15.8	200.8	4.48	1046	16.9	155.7	3.47
45	50	1967	15.4	14.8	15.7	19.1	20.8	2.16	4.6	10.4	0.30	3.84	36.7	104	2.25	0.118	0.108	9.4	0.46	3787	1749	255	76	D	S	0.1453	285.8	5.73	1891	15.2	272.2	5.46	1458	16.7	245.5	4.92	1172	17.6	205.8	4.13
50	55	1749	16.7	16.1	16.8	20.2	22.0	2.31	4.8	11.2	0.30	4.39	38.4	102	2.39	0.118	0.109	9.4	0.49	3891	1749	253	77	D	S	0.1813	317.1	5.78	1704	16.4	304.5	5.55	1421	17.6	283.2	5.16	1214	18.4	249.4	4.55
55	60	1565	18.0	17.3	17.8	21.2	23.1	2.45	5.0	12.0	0.29	4.94	39.7	101	2.53	0.119	0.110	9.4	0.51	3962	1749	249	77	D	S	0.2200	344.3	5.75	1538	17.5	332.5	5.55	1350	18.6	314.9	5.26	1202	19.2	286.4	4.78
60	65	1409	19.1	18.5	18.7	22.2	24.0	2.58	5.2	12.7	0.29	5.49	40.6	99	2.66	0.120	0.111	9.3	0.53	4010	1749	245	77	D	S	0.2608	367.5	5.67	1392	18.7	356.3	5.49	1266	19.5	341.3	5.26	1160	20.1	317.2	4.89
65	70	1277	20.3	19.6	19.6	23.0	24.8	2.71	5.4	13.3	0.29	6.04	41.2	98	2.80	0.122	0.113	9.2	0.54	4039	1749	240	77	D	S	0.3034	387.4	5.54	1266	19.7	376.7	5.39	1180	20.4	363.3	5.20	1104	20.9	342.9	4.91
70	75	1165	21.3	20.7	20.4	23.7	25.6	2.83	5.6	13.9	0.29	6.58	41.7	96	2.93	0.124	0.115	9.0	0.55	4056	1749	235	77	D	S	0.3471	404.4	5.40	1158	20.8	394.1	5.26	1098	21.3	381.9	5.10	1043	21.8	364.4	4.87
75	80	1069	22.4	21.7	21.1	24.4	26.3	2.95	5.8	14.4	0.28	7.12	42.0	95	3.06	0.125	0.116	8.9	0.56	4063	1749	230	76	D	S	0.3916	418.6	5.24	1064	21.8	408.7	5.12	1021	22.2	397.3	4.97	981	22.6	382.2	4.79
80	85	987	23.3	22.7	21.7	25.0	26.9	3.06	6.0	14.8	0.28	7.65	42.2	94	3.18	0.127	0.118	8.7	0.57	4065	1749	225	76	D	S	0.4366	430.9	5.08	984	22.7	421.3	4.96	953	23.1	410.5	4.84	922	23.4	397.1	4.68
85	90	916	24.3	23.6	22.3	25.6	27.4	3.16	6.1	15.2	0.28	8.17	42.3	93	3.30	0.129	0.120	8.6	0.58	4062	1749	220	75	D	S	0.4817	441.2	4.91	914	23.6	431.8	4.80	891	24.0	421.5	4.69	868	24.2	409.6	4.56
90	95	854	25.1	24.4	22.9	26.1	28.0	3.26	6.3	15.6	0.29	8.68	42.4	92	3.42	0.131	0.122	8.5	0.59	4056	1749	216	74	D	S	0.5265	449.6	4.74	853	24.5	440.5	4.64	835	24.8	430.5	4.54	818	25.0	419.9	4.43
95	100	800	26.0	25.3	23.4	26.6	28.4	3.35	6.4	15.9	0.29	9.18	42.4	91	3.54	0.133	0.124	8.3	0.60	4049	1749	211	73	D	S	0.5709	456.7	4.57	799	25.3	447.8	4.48	786	25.5	438.1	4.39	772	25.8	428.5	4.29
100	105	753	26.8	26.1	23.9	27.0	28.8	3.44	6.6	16.2	0.29	9.67	42.4	89	3.64	0.135	0.126	8.2	0.60	4041	1749	207	73	D	S	0.6147	462.9	4.41	752	26.1	454.1	4.33	742	26.3	444.6	4.24	731	26.5	435.8	4.16
105	110	711	27.5	26.8	24.4	27.4	29.2	3.53	6.7	16.4	0.29	10.15	42.3	88	3.75	0.137	0.128	8.1	0.61	4034	1749	203	72	D	S	0.6577	467.6	4.26	711	26.8	459.0	4.18	703	27.0	449.7	4.09	694	27.2	441.7	4.02
110	115	675	28.3	27.5	24.8	27.8	29.6	3.61	6.9	16.7	0.29	10.61	42.3	87	3.85	0.138	0.130	8.0	0.62	4026	1749	200	72	D	S	0.6999	472.4	4.11	675	27.5	463.9	4.04	668	27.7	454.7	3.96	662	27.9	447.4	3.90
115	120	642	28.9	28.2	25.2	28.1	29.9	3.68	7.0	16.9	0.29	11.06	42.2	86	3.95	0.140	0.132	7.9	0.62	4020	1749	197	71	D	S	0.7408	475.6	3.97	642	28.2	467.3	3.90	637	28.4	458.2	3.82	631	28.5	451.3	3.77
120	125	613	29.6	28.9	25.5	28.5	30.3	3.76	7.1	17.0	0.29	11.50	42.2	85	4.04	0.142	0.134	7.8	0.63	4014	1749	194	70	D	S	0.7809	478.7	3.83	613	28.9	470.4	3.77	609	29.0	461.4	3.70	604	29.1	455.0	3.64
125	130	587	30.2	29.5	25.9	28.8	30.5	3.83	7.2	17.2	0.29	11.92	42.1	85	4.13	0.143	0.135	7.7	0.63	4010	1749	191	70	C	S	0.8196	481.1	3.70	587	29.5	473.0	3.64	584	29.6	464.1	3.57	580	29.7	458.1	3.53
130	135	563	30.8	30.1	26.2	29.1	30.8	3.89	7.3	17.3	0.29	12.33	42.0	84	4.21	0.145	0.137	7.6	0.64	4007	1749	188	69	C	S	0.8572	482.6	3.58	563	30.1	474.5	3.52	560	30.2	465.7	3.45	557	30.3	460.1	3.41
135	140	542	31.4	30.7	26.5	29.3	31.1	3.96	7.4	17.4	0.30	12.74	42.0	83	4.30	0.146	0.138	7.5	0.65	4005	1749	186	69	C	S	0.8935	484.3	3.46	542	30.7	476.3	3.41	540	30.8	467.6	3.34	537	30.9	462.3	3.31
140	145	523	32.0	31.2	26.8	29.6	31.3	4.02	7.5	17.5	0.30	13.12	42.0	82	4.37	0.148	0.140	7.4	0.65	4004	1749	184	69	C	S	0.9287	485.7	3.35	523	31.2	477.8	3.30	521	31.3	469.1	3.24	519	31.4	464.1	3.20
145	150	506	32.5	31.8	27.1	29.8	31.5	4.08	7.6	17.6	0.30	13.50	42.0	81	4.45	0.149	0.141	7.4	0.66	4004	1749	182	68	C	S	0.9626	487.1	3.25	506	31.8	479.2	3.20	505	31.8	470.6	3.14	503	31.9	465.8	3.11
150	155	490	33.0	32.3	27.3	30.0	31.7	4.13	7.6	17.6	0.30	13.87	41.9	80	4.52	0.150	0.142	7.3	0.66	4006	1749	180	68	C	S	0.9953	487.7	3.15	490	32.3	479.8	3.10	489	32.3	471.3	3.04	487	32.4	466.7	3.01
155	160	476	33.5	32.8	27.6	30.2	31.9	4.19	7.7	17.7	0.30	14.23	41.9	79	4.58	0.152	0.144	7.2	0.67	4009	1749	178	68	C	S	1.0267	488.7	3.06	476	32.8	480.9	3.01	475	32.8	472.4	2.95	474	32.8	468.0	2.93
160	165	463	34.0	33.2	27.8	30.4	32.1	4.24	7.8	17.7	0.30	14.57	41.9	79	4.65	0.153	0.145	7.2	0.68	4012	1749	177	67	C	S	1.0570	489.4	2.97	463	33.2	481.6	2.92	462	33.3	473.1	2.87	461	33.3	468.9	2.84
165	170	451	34.4	33.7	28.0	30.6	32.3	4.29	7.8	17.8	0.30	14.91	41.9	78	4.71	0.154	0.146	7.2	0.68	4017	1749	175	67	C	S	1.0860	489.8	2.88	451	33.7	482.1	2.84	450	33.7	473.5	2.79	449	33.8	469.5	2.76
170	175	440	34.8	34.1	28.2	30.8	32.4	4.33	7.9	17.8	0.31	15.24	42.0	77	4.77	0.155	0.147	7.1	0.69	4023	1749	174	67	C	S	1.1139	490.1	2.80	440	34.1	482.4	2.76	440	34.1	474.0	2.71	438	34.2	470.0	2.69
175	180	430	35.3	34.5	28.4	31.0	32.6	4.38	8.0	17.8	0.31	15.56	42.0	76	4.82	0.156	0.148	7.1	0.70	4030	1749	173	67	C	S	1.1407	490.5	2.73	430	34.5	482.8	2.68	430	34.5	474.4	2.64	429	34.6	470.6	2.62
180	185	420	35.7	34.9	28.6	31.1	32.7	4.42	8.0	17.8	0.31	15.87	42.0	76	4.88	0.157	0.149	7.0	0.70	4037	1749	172	67	C	S	1.1662	489.8	2.65	420	34.9	482.2	2.61	420	34.9	473.8	2.56	419	35.0	470.1	2.54
SI = 22 m Initial Density = 6000 stems/ha																																								
5	10	5819	2.0	1.9	2.7	3.6	3.9	0.74	1.8	0.7	0.70	0.43	1.9	152	1.31	0.362	0.339	1.3	0.02	943	1948	64	25	A	S	0.0004	2.6	0.26	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	5426	4.0	3.8	4.6	6.2	6.7	0.91	2.4	1.9	0.55	0.66	7.0	126	1.36	0.219	0.202	3.5	0.08	1496	1948	125	36	B	S	0.0031	16.9	1.14	16	8.2	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	4904	5.9	5.5	6.5	8.7	9.5	1.09	2.9	3.3	0.46	0.97	13.2	119	1.43	0.165	0.151	5.5	0.15	2080	1948	177	47	B	S	0.0092	45.3	2.28	842	8.5	13.9	0.70	2	12.5	0.1	0.01	0	0.0	0.0	0.00
20	25	4341	7.6	7.2	8.3	10.9	12.0	1.27	3.2	4.7	0.40	1.32	19.5	116	1.52	0.139	0.127	7.1	0.23	2613	1948	217	58	C	S	0.0194	84.4	3.39	2055	9.2	52.8	2.12	98	13.0	6.0	0.24	12	14.6	0.8	0.03
25	30	3796	9.2	8.7	10.0	13.0	14.2	1.45	3.4	6.0	0.36	1.73	25.0	113	1.62	0.125	0.114	8.3	0.30	3057	1948	245	66	C	S	0.0340	128.9	4.32	2615	10.2	101.9	3.41	471	13.5	35.5	1.19	135	15.0	11.4	0.38
30	35	3303	10.7	10.2	11.5	14.8	16.2	1.62	3.7	7.2	0.34	2.17	29.7	111	1.74	0.118	0.107	9.1	0.37	3406	1948	261	72	D	S	0.0528	174.5	5.00	2693	11.3	151.8	4.35	953	14.0	87.3	2.50	434	15.4	43.7	1.25
35	40	2875	12.2	11.6	13.0	16.4	17.9	1.79	3.9	8.3	0.32	2.64	33.4	109	1.87	0.114	0.104	9.6	0.42	3669	1948	270	76	D	S	0.0759	218.1	5.47	2552	12.4	198.8	4.99	1317	14.7	145.8	3.66	784	16.0	93.9	2.36
40	45	2511	13.6	13.0	14.3	17.8	19.5	1.94	4.2	9.3	0.31	3.13	36.2	107	2.00	0.112	0.103	9.8	0.46	3860	1948	273	79	D	S	0.1029	258.3	5.76	2334	13.6	241.4	5.38	1506	15.5	200.3	4.46	1057	16.6	149.5	3.33
45	50	2204	14.9	14.3	15.4	19.0	20.8	2.10	4.4	10.2	0.30	3.64	38.4	105	2.13	0.112	0.102	10.0	0.49	3994	1948	272	80	D	S	0.1334	294.0	5.90	2104	14.7	278.9	5.59	1560	16.3	247.4	4.96	1215	17.3	202.1	4.05
50	55	1948	16.2	15.6	16.5	20.1	22.0	2.24	4.6	11.1	0.29	4.16	40.0	103	2.27	0.112	0.103	10.0	0.51	4086	1948	269	81	D	S	0.1671	325.5	5.93	1890	15.9	311.7	5.68	1533	17.2	287.0	5.23	1280	18.1	248.2	4.52
55	60	1734	17.4	16.8	17.5	21.2	23.1	2.38	4.8	11.8	0.29	4.68	41.2	102	2.40	0.114	0.104	9.9	0.53	4145	1948	265	81	D	S	0.2035	352.8	5.89	1699	17.0	340.0	5.68	1462	18.1	319.9	5.34	1280	18.9	287.3	4.80
60	65	1554	18.6	17.9	18.4	22.1	24.0	2.52	5.0	12.5	0.28	5.21	42.1	100	2.54	0.115	0.106	9.8	0.55	4180	1948	259	81	D	S	0.2420	376.1	5.80	1532	18.1	364.1	5.61	1373	19.0	347.2	5.35	1242	19.7	319.7	4.93
65	70	1402	19.7	19.0	19.3	22.9	24.8	2.64	5.2	13.1	0.28	5.75	42.6	99	2.67	0.117	0.108	9.6	0.56	4197	1948	253	81	D	S	0.2824	395.9	5.67	1388	19.2	384.5	5.50	1279	19.9	369.7	5.29	1185	20.5	346.4	4.96
70	75	1274	20.7	20.1	20.1	23.6	25.6	2.76	5.4	13.7	0.28	6.27	43.0	97	2.80	0.119	0.109	9.5	0.57	4203	1948	247	80	D	S	0.3240	412.8	5.51	1265	20.2	401.9	5.37	1189	20.8	388.6	5.19	1121	21.3	368.7	4.92
75	80	1165	21.7	21.1	20.8	24.3	26.3	2.88	5.6	14.2	0.28	6.80	43.3	96	2.93	0.121	0.112	9.3	0.58	4200	1948	241	79	D	S	0.3665	427.0	5.35	1159	21.2	416.6	5.22	1105	21.7	404.3	5.06	1055	22.1	387.2	4.85
80	85	1071	22.7	22.0	21.4	24.9	26.9	2.99	5.8	14.7	0.28	7.31	43.4	95	3.06	0.123	0.114	9.1	0.59	4192	1948	235	78	D	S	0.4096	438.7	5.17	1067	22.1	428.6	5.05	1028	22.6	417.1	4.91	990	22.9	402.1	4.74
85	90	991	23.6	23.0	22.0	25.5	27.4	3.09	6.0	15.1	0.28	7.82	43.5	94	3.18	0.125	0.116	8.9	0.60	4179	1948	230	78	D	S	0.4530	448.9	5.00	988	23.0	439.1	4.89	959	23.4	428.1	4.76	931	23.7	414.9	4.62
90	95	921	24.5	23.8	22.6	26.0	28.0	3.19	6.1	15.4	0.28	8.32	43.4	93	3.30	0.127	0.118	8.8	0.60	4165	1948	225	77	D	S	0.4962	457.0	4.82	919	23.9	447.5	4.72	897	24.2	437.0	4.61	876	24.5	425.2	4.48
95	100	860	25.3	24.7	23.1	26.5	28.4	3.28	6.3	15.8	0.28	8.81	43.4	91	3.41	0.129	0.120	8.6	0.61	4150	1948	220	76	D	S	0.5392	463.7	4.64	859	24.7	454.4	4.55	842	25.0	444.3	4.45	825	25.2	433.6	4.34
100	105	807	26.1	25.4	23.6	26.9	28.8	3.37	6.4	16.1	0.28	9.29	43.3	90	3.52	0.131	0.122	8.5	0.61	4135	1948	215	75	D	S	0.5817	469.4	4.48	806	25.5	460.3	4.39	793	25.7	450.4	4.30	780	25.9	440.8	4.20
105	110	761	26.9	26.2	24.0	27.3	29.2	3.46	6.6	16.3	0.28	9.75	43.2	89	3.62	0.133	0.124	8.3	0.62	4120	1948	211	74	D	S	0.6235	474.5	4.32	760	26.2	465.6	4.24	751	26.4	456.0	4.15	740	26.6	447.2	4.07
110	115	719	27.6	26.9	24.4	27.7	29.6	3.54	6.7	16.5	0.29	10.21	43.1	88	3.73	0.135	0.126	8.2	0.62	4107	1948	207	73	D	S	0.6645	477.8	4.16	719	26.9	469.1	4.08	711	27.1	459.6	4.00	702	27.3	451.5	3.93
115	120	683	28.3	27.6	24.8	28.0	29.9	3.61	6.8	16.7	0.29	10.65	43.0	87	3.83	0.137	0.128	8.1	0.63	4094	1948	203	73	D	S	0.7048	481.4	4.02	683	27.6	472.7	3.94	677	27.8	463.4	3.87	670	27.9	456.0	3.80
120	125	651	29.0	28.3	25.2	28.4	30.3	3.69	6.9	16.9	0.29	11.08	42.9	86	3.92	0.138	0.130	8.0	0.63	4083	1948	200	72	D	S	0.7439	484.3	3.88	651	28.3	475.8	3.81	646	28.4	466.6	3.74	640	28.6	459.7	3.68
125	130	622	29.6	28.9	25.5	28.7	30.5	3.76	7.1	17.1	0.29	11.50	42.8	85	4.01	0.140	0.131	7.9	0.64	4073	1948	197	72	D	S	0.7822	486.5	3.75	622	28.9	478.1	3.68	618	29.0	469.0	3.61	613	29.2	462.5	3.56
130	135	595	30.2	29.5	25.9	28.9	30.8	3.83	7.2	17.2	0.29	11.91	42.7	85	4.10	0.142	0.133	7.8	0.64	4064	1948	194	71	D	S	0.8190	487.3	3.61	595	29.5	479.0	3.55	592	29.6	470.1	3.49	588	29.7	464.0	3.44
135	140	572	30.8	30.1	26.2	29.2	31.1	3.89	7.3	17.3	0.29	12.31	42.6	84	4.18	0.143	0.135	7.7	0.65	4057	1948	191	70	D	S	0.8549	489.0	3.50	572	30.1	480.8	3.44	569	30.2	471.9	3.37	566	30.3	466.2	3.33
140	145	551	31.4	30.6	26.5	29.5	31.3	3.95	7.3	17.4	0.29	12.70	42.6	83	4.26	0.145	0.136	7.6	0.65	4052	1948	189	70	C	S	0.8897	490.2	3.38	551	30.6	482.1	3.33	549	30.7	473.3	3.27	546	30.8	467.8	3.23
145	150	532	31.9	31.2	26.7	29.7	31.5	4.01	7.4	17.5	0.30	13.07	42.5	82	4.34	0.146	0.138	7.5	0.66	4048	1948	186	70	C	S	0.9233	491.2	3.28	532	31.2	483.1	3.22	530	31.2	474.3	3.16	528	31.3	469.2	3.13
150	155	514	32.4	31.7	27.0	29.9	31.7	4.07	7.5	17.6	0.30	13.44	42.4	81	4.41	0.147	0.139	7.4	0.66	4046	1948	184	69	C	S	0.9556	491.2	3.17	514	31.7	483.2	3.12	513	31.7	474.5	3.06	510	31.8	469.6	3.03
155	160	498	32.9	32.2	27.2	30.1	31.9	4.12	7.6	17.6	0.30	13.80	42.3	80	4.48	0.149	0.140	7.4	0.67	4044	1948	182	69	C	S	0.9869	491.5	3.07	498	32.2	483.5	3.02	497	32.2	474.9	2.97	495	32.3	470.2	2.94
160	165	484	33.4	32.6	27.4	30.3	32.1	4.17	7.7	17.7	0.30	14.14	42.3	79	4.55	0.150	0.142	7.3	0.67	4044	1948	180	68	C	S	1.0169	492.2	2.99	484	32.6	484.4	2.94	483	32.7	475.7	2.89	481	32.8	471.2	2.86
165	170	471	33.8	33.1	27.7	30.5	32.3	4.22	7.7	17.7	0.30	14.48	42.3	79	4.61	0.151	0.143	7.3	0.68	4046	1948	179	68	C	S	1.0461	492.7	2.90	471	33.1	484.8	2.85	470	33.1	476.2	2.80	469	33.2	471.9	2.78
170	175	459	34.3	33.5	27.9	30.7	32.4	4.27	7.8	17.7	0.30	14.81	42.3	78	4.67	0.152	0.144	7.2	0.69	4048	1948	177	68	C	S	1.0739	492.9	2.82	459	33.5	485.1	2.77	458	33.6	476.5	2.72	457	33.6	472.4	2.70
175	180	447	34.7	34.0	28.1	30.8	32.6	4.32	7.9	17.7	0.30	15.12	42.3	77	4.73	0.153	0.145	7.2	0.69	4052	1948	176	68	C	S	1.1007	492.0	2.74	447	34.0	484.2	2.69	446	34.0	475.6	2.64	445	34.1	471.7	2.62
180	185	437	35.1	34.4	28.2	31.0	32.7	4.36	7.9	17.7	0.31	15.43	42.3	76	4.78	0.154	0.146	7.1	0.70	4057	1948	175	67	C	S	1.1263	492.2	2.66	437	34.4	484.5	2.62	437	34.4	476.0	2.57	436	34.4	472.2	2.55

Table A122. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 22 m Initial Density = 7000 stems/ha																																								
5	10	6773	1.9	1.8	2.6	3.6	3.9	0.73	1.7	0.7	0.69	0.42	2.0	157	1.22	0.336	0.314	1.4	0.02	1072	2136	71	29	A	S	0.0004	2.7	0.27	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	6280	3.9	3.6	4.5	6.2	6.7	0.89	2.3	1.9	0.54	0.64	7.4	128	1.26	0.204	0.188	3.8	0.09	1662	2136	138	40	B	S	0.0028	17.6	1.18	9	8.2	0.1	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	5635	5.6	5.3	6.4	8.7	9.5	1.07	2.7	3.3	0.45	0.92	14.1	122	1.33	0.154	0.141	5.9	0.17	2275	2136	194	52	C	S	0.0084	47.2	2.38	775	8.4	12.2	0.61	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	25	4947	7.3	6.9	8.2	10.9	12.0	1.24	3.0	4.6	0.39	1.26	20.6	118	1.42	0.130	0.119	7.6	0.25	2823	2136	236	62	C	S	0.0177	87.6	3.52	2128	9.1	51.4	2.07	71	12.9	4.3	0.17	7	14.5	0.5	0.02
25	30	4291	8.8	8.4	9.8	12.9	14.2	1.41	3.3	5.9	0.35	1.64	26.3	115	1.53	0.118	0.107	8.9	0.32	3272	2136	264	71	D	S	0.0311	133.3	4.46	2815	10.0	102.2	3.42	412	13.3	30.3	1.01	102	14.9	8.4	0.28
30	35	3706	10.3	9.8	11.4	14.7	16.2	1.58	3.6	7.1	0.33	2.06	31.1	112	1.64	0.112	0.101	9.7	0.39	3618	2136	280	76	D	S	0.0485	179.7	5.15	2940	11.0	153.9	4.41	916	13.9	81.1	2.33	381	15.3	37.3	1.07
35	40	3203	11.8	11.2	12.8	16.3	17.9	1.74	3.8	8.2	0.31	2.51	34.8	110	1.77	0.108	0.098	10.2	0.44	3873	2136	288	80	D	S	0.0699	224.0	5.62	2797	12.1	202.3	5.07	1329	14.5	141.2	3.54	744	15.8	86.0	2.16
40	45	2781	13.1	12.6	14.1	17.7	19.5	1.90	4.0	9.2	0.30	2.98	37.7	108	1.90	0.107	0.097	10.4	0.48	4054	2136	290	83	D	S	0.0951	264.6	5.90	2559	13.2	245.9	5.48	1563	15.3	198.4	4.42	1051	16.4	142.7	3.18
45	50	2428	14.5	13.9	15.2	19.0	20.8	2.05	4.3	10.1	0.29	3.47	39.9	106	2.03	0.107	0.098	10.5	0.51	4177	2136	288	84	D	S	0.1238	300.7	6.03	2303	14.3	284.1	5.70	1644	16.1	247.8	4.97	1242	17.1	197.3	3.96
50	55	2136	15.7	15.1	16.3	20.1	22.0	2.19	4.5	10.9	0.29	3.97	41.4	104	2.16	0.108	0.098	10.5	0.53	4257	2136	284	85	D	S	0.1556	332.3	6.06	2063	15.5	317.4	5.79	1628	16.9	289.1	5.27	1330	17.8	245.7	4.48
55	60	1893	16.9	16.3	17.3	21.1	23.1	2.33	4.7	11.7	0.28	4.48	42.6	103	2.30	0.109	0.100	10.4	0.55	4304	2136	278	85	D	S	0.1900	359.7	6.01	1849	16.6	345.9	5.78	1560	17.8	323.3	5.40	1344	18.5	286.7	4.79
60	65	1690	18.1	17.5	18.2	22.0	24.0	2.46	4.9	12.4	0.28	4.99	43.4	101	2.43	0.111	0.101	10.2	0.57	4328	2136	272	84	D	S	0.2266	383.0	5.90	1663	17.6	370.2	5.71	1468	18.6	351.4	5.42	1312	19.3	320.6	4.94
65	70	1519	19.2	18.5	19.0	22.8	24.8	2.59	5.1	13.0	0.28	5.50	43.9	100	2.57	0.113	0.103	10.0	0.58	4336	2136	265	84	D	S	0.2650	402.6	5.76	1501	18.7	390.5	5.59	1368	19.5	374.3	5.36	1256	20.1	348.4	4.99
70	75	1376	20.2	19.6	19.8	23.5	25.6	2.71	5.3	13.6	0.28	6.02	44.2	98	2.70	0.115	0.105	9.8	0.59	4332	2136	258	83	D	S	0.3049	419.5	5.60	1365	19.7	408.0	5.45	1272	20.4	393.6	5.26	1190	20.9	371.5	4.96
75	80	1254	21.2	20.6	20.5	24.2	26.3	2.82	5.5	14.1	0.28	6.52	44.4	97	2.82	0.117	0.108	9.6	0.59	4320	2136	251	82	D	S	0.3456	433.4	5.43	1246	20.7	422.4	5.29	1180	21.2	409.3	5.12	1120	21.7	390.3	4.89
80	85	1150	22.2	21.5	21.1	24.8	26.9	2.93	5.7	14.5	0.28	7.03	44.4	96	2.95	0.119	0.110	9.4	0.60	4303	2136	245	81	D	S	0.3870	445.1	5.24	1145	21.6	434.6	5.12	1097	22.1	422.4	4.98	1052	22.5	405.8	4.78
85	90	1061	23.1	22.4	21.7	25.4	27.4	3.03	5.8	14.9	0.28	7.52	44.5	95	3.07	0.121	0.112	9.2	0.61	4283	2136	239	80	D	S	0.4288	455.0	5.06	1057	22.5	444.8	4.95	1022	22.9	433.3	4.82	988	23.2	418.7	4.66
90	95	984	24.0	23.3	22.3	25.9	28.0	3.13	6.0	15.3	0.28	8.01	44.4	93	3.19	0.123	0.114	9.1	0.61	4261	2136	233	79	D	S	0.4707	463.2	4.88	982	23.3	453.2	4.78	955	23.7	442.3	4.66	929	24.0	429.3	4.53
95	100	917	24.8	24.1	22.8	26.4	28.4	3.22	6.1	15.6	0.28	8.49	44.3	92	3.30	0.125	0.116	8.9	0.62	4239	2136	227	78	D	S	0.5123	469.8	4.70	915	24.2	460.2	4.61	895	24.5	449.6	4.50	875	24.7	438.0	4.39
100	105	858	25.6	24.9	23.3	26.8	28.8	3.31	6.3	15.9	0.28	8.96	44.1	91	3.41	0.127	0.118	8.7	0.62	4218	2136	222	77	D	S	0.5536	475.0	4.53	857	24.9	465.6	4.44	841	25.2	455.4	4.34	826	25.4	445.0	4.24
105	110	807	26.4	25.7	23.7	27.2	29.2	3.40	6.4	16.2	0.28	9.42	44.0	90	3.52	0.129	0.120	8.6	0.63	4197	2136	217	76	D	S	0.5944	479.7	4.37	806	25.7	470.5	4.28	794	25.9	460.5	4.19	782	26.1	451.0	4.11
110	115	762	27.1	26.4	24.1	27.6	29.6	3.48	6.6	16.4	0.28	9.87	43.9	89	3.62	0.131	0.122	8.4	0.63	4177	2136	213	75	D	S	0.6345	483.5	4.21	762	26.4	474.4	4.13	752	26.6	464.7	4.05	742	26.8	456.0	3.97
115	120	722	27.8	27.1	24.5	27.9	29.9	3.55	6.7	16.6	0.28	10.30	43.7	88	3.72	0.133	0.124	8.3	0.63	4159	2136	209	74	D	S	0.6737	486.4	4.06	722	27.1	477.6	3.98	714	27.3	468.0	3.90	706	27.4	460.0	3.84
120	125	686	28.4	27.7	24.9	28.2	30.3	3.63	6.8	16.8	0.29	10.73	43.6	87	3.82	0.135	0.126	8.2	0.64	4143	2136	205	74	D	S	0.7121	488.5	3.91	686	27.7	479.8	3.84	680	27.9	470.4	3.77	673	28.0	462.9	3.71
125	130	654	29.1	28.4	25.2	28.5	30.5	3.70	6.9	17.0	0.29	11.14	43.4	86	3.91	0.137	0.128	8.1	0.64	4128	2136	202	73	D	S	0.7495	490.2	3.77	654	28.4	481.6	3.71	649	28.5	472.3	3.64	643	28.6	465.4	3.58
130	135	626	29.7	29.0	25.6	28.8	30.8	3.77	7.0	17.1	0.29	11.55	43.3	85	4.00	0.139	0.130	8.0	0.65	4115	2136	199	72	D	S	0.7859	492.0	3.65	626	29.0	483.6	3.59	622	29.1	474.4	3.52	617	29.2	467.9	3.47
135	140	600	30.3	29.5	25.9	29.1	31.1	3.83	7.1	17.2	0.29	11.94	43.2	84	4.08	0.140	0.131	7.8	0.65	4104	2136	195	72	D	S	0.8213	492.8	3.52	600	29.5	484.5	3.46	597	29.6	475.4	3.40	593	29.8	469.3	3.36
140	145	577	30.8	30.1	26.1	29.3	31.3	3.89	7.2	17.3	0.29	12.33	43.1	83	4.16	0.142	0.133	7.8	0.65	4095	2136	193	71	D	S	0.8556	493.7	3.41	577	30.1	485.4	3.35	574	30.2	476.4	3.29	571	30.3	470.7	3.25
145	150	556	31.4	30.6	26.4	29.6	31.5	3.95	7.3	17.4	0.29	12.70	43.0	83	4.24	0.143	0.135	7.7	0.66	4087	2136	190	71	D	S	0.8888	494.2	3.30	556	30.6	486.0	3.24	554	30.7	477.1	3.18	551	30.8	471.6	3.15
150	155	537	31.9	31.2	26.7	29.8	31.7	4.01	7.4	17.5	0.30	13.06	42.9	82	4.32	0.145	0.136	7.6	0.66	4081	2136	188	70	D	S	0.9210	494.6	3.19	537	31.2	486.5	3.14	535	31.2	477.6	3.08	533	31.3	472.4	3.05
155	160	520	32.4	31.6	26.9	30.0	31.9	4.06	7.5	17.5	0.30	13.42	42.8	81	4.39	0.146	0.137	7.5	0.67	4076	2136	186	70	C	S	0.9521	495.1	3.10	520	31.6	487.0	3.05	518	31.7	478.2	2.99	516	31.8	473.2	2.96
160	165	504	32.9	32.1	27.1	30.2	32.1	4.12	7.6	17.6	0.30	13.76	42.7	80	4.45	0.147	0.139	7.5	0.67	4073	2136	184	69	C	S	0.9819	494.9	3.00	504	32.1	486.9	2.95	503	32.2	478.2	2.90	501	32.2	473.4	2.87
165	170	489	33.3	32.6	27.4	30.4	32.3	4.17	7.6	17.6	0.30	14.10	42.6	79	4.52	0.149	0.140	7.4	0.68	4071	2136	182	69	C	S	1.0106	494.2	2.91	489	32.6	486.3	2.86	488	32.6	477.6	2.81	486	32.7	473.1	2.79
170	175	476	33.8	33.0	27.6	30.6	32.4	4.21	7.7	17.6	0.30	14.42	42.6	79	4.58	0.150	0.141	7.3	0.68	4071	2136	180	69	C	S	1.0384	494.3	2.83	476	33.0	486.5	2.78	475	33.1	477.8	2.73	474	33.1	473.5	2.71
175	180	464	34.2	33.4	27.8	30.7	32.6	4.26	7.8	17.7	0.30	14.74	42.6	78	4.64	0.151	0.142	7.3	0.69	4072	2136	179	68	C	S	1.0653	494.3	2.75	464	33.4	486.5	2.70	463	33.5	477.8	2.66	462	33.5	473.6	2.63
180	185	453	34.6	33.9	27.9	30.9	32.7	4.31	7.8	17.7	0.30	15.05	42.6	77	4.70	0.152	0.143	7.2	0.69	4074	2136	177	68	C	S	1.0912	494.3	2.67	453	33.9	486.4	2.63	452	33.9	477.8	2.58	451	34.0	473.8	2.56
SI = 22 m Initial Density = 7500 stems/ha																																								
5	10	7249	1.9	1.8	2.6	3.6	3.9	0.73	1.7	0.7	0.69	0.42	2.1	159	1.17	0.325	0.304	1.5	0.02	1136	2226	75	30	B	S	0.0004	2.8	0.28	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	6705	3.8	3.6	4.5	6.2	6.7	0.89	2.3	1.9	0.54	0.63	7.6	130	1.22	0.197	0.182	3.9	0.09	1743	2226	144	42	B	S	0.0027	18.0	1.21	7	8.1	0.1	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	5996	5.5	5.2	6.4	8.7	9.5	1.06	2.7	3.3	0.44	0.91	14.4	123	1.29	0.149	0.136	6.1	0.17	2368	2226	202	54	C	S	0.0080	48.1	2.42	740	8.4	11.4	0.57	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	25	5244	7.2	6.8	8.1	10.9	12.0	1.23	3.0	4.6	0.39	1.23	21.1	118	1.38	0.127	0.115	7.9	0.26	2923	2226	245	65	C	S	0.0170	89.0	3.58	2152	9.0	50.6	2.03	60	12.9	3.6	0.14	5	14.5	0.3	0.01
25	30	4533	8.7	8.3	9.8	12.9	14.2	1.40	3.2	5.9	0.35	1.61	27.0	115	1.49	0.115	0.104	9.1	0.33	3373	2226	273	73	D	S	0.0298	135.2	4.53	2903	9.9	102.1	3.42	384	13.3	27.9	0.93	88	14.8	7.2	0.24
30	35	3901	10.2	9.7	11.3	14.7	16.2	1.56	3.5	7.0	0.33	2.01	31.7	113	1.60	0.109	0.099	9.9	0.39	3717	2226	289	79	D	S	0.0467	182.0	5.22	3053	10.9	154.7	4.44	894	13.8	78.0	2.24	355	15.2	34.3	0.98
35	40	3362	11.6	11.1	12.7	16.3	17.9	1.72	3.7	8.1	0.31	2.45	35.5	110	1.72	0.106	0.096	10.4	0.45	3968	2226	296	82	D	S	0.0674	226.5	5.68	2912	11.9	203.7	5.11	1329	14.4	138.7	3.48	722	15.7	82.1	2.06
40	45	2911	13.0	12.4	14.0	17.7	19.5	1.88	4.0	9.1	0.30	2.91	38.4	108	1.85	0.105	0.095	10.7	0.49	4143	2226	298	85	D	S	0.0918	267.3	5.96	2665	13.0	247.7	5.52	1584	15.2	197.0	4.39	1043	16.3	139.1	3.10
45	50	2536	14.3	13.7	15.1	18.9	20.8	2.03	4.2	10.0	0.29	3.39	40.5	106	1.99	0.105	0.095	10.7	0.52	4261	2226	296	86	D	S	0.1197	303.5	6.09	2397	14.2	286.3	5.74	1679	15.9	247.5	4.96	1251	16.9	194.7	3.90
50	55	2226	15.5	14.9	16.2	20.0	22.0	2.17	4.4	10.8	0.29	3.88	42.1	105	2.12	0.106	0.096	10.7	0.54	4335	2226	291	86	D	S	0.1506	335.2	6.11	2145	15.3	319.7	5.83	1671	16.7	289.7	5.28	1350	17.6	244.1	4.45
55	60	1969	16.7	16.1	17.2	21.0	23.1	2.31	4.6	11.6	0.28	4.38	43.2	103	2.25	0.107	0.098	10.6	0.56	4377	2226	284	86	D	S	0.1842	362.6	6.06	1920	16.4	348.4	5.82	1604	17.6	324.4	5.42	1371	18.4	285.9	4.78
60	65	1755	17.9	17.2	18.1	21.9	24.0	2.44	4.8	12.3	0.28	4.89	43.9	102	2.39	0.109	0.099	10.4	0.57	4397	2226	278	86	D	S	0.2199	385.9	5.95	1725	17.4	372.7	5.75	1512	18.5	353.0	5.44	1343	19.2	320.5	4.94
65	70	1575	18.9	18.3	18.9	22.8	24.8	2.56	5.0	12.9	0.28	5.40	44.4	100	2.52	0.111	0.101	10.2	0.58	4399	2226	270	85	D	S	0.2575	405.5	5.80	1556	18.5	393.1	5.63	1410	19.3	376.2	5.38	1288	19.9	348.9	4.99
70	75	1425	20.0	19.4	19.7	23.5	25.6	2.68	5.2	13.5	0.28	5.90	44.7	99	2.65	0.113	0.104	10.0	0.59	4391	2226	263	84	D	S	0.2964	422.4	5.64	1412	19.5	410.6	5.48	1311	20.2	395.7	5.29	1222	20.7	372.5	4.98
75	80	1297	21.0	20.3	20.4	24.2	26.3	2.79	5.4	14.0	0.28	6.40	44.9	98	2.78	0.115	0.106	9.8	0.60	4375	2226	256	83	D	S	0.3364	436.3	5.46	1289	20.4	425.1	5.32	1216	21.0	411.5	5.15	1151	21.5	391.6	4.90
80	85	1188	21.9	21.3	21.0	24.8	26.9	2.90	5.6	14.5	0.28	6.90	44.9	96	2.90	0.117	0.108	9.6	0.61	4354	2226	249	82	D	S	0.3770	447.9	5.28	1182	21.4	437.2	5.15	1130	21.9	424.6	5.00	1081	22.3	407.3	4.80
85	90	1094	22.9	22.2	21.6	25.3	27.4	3.00	5.8	14.9	0.28	7.39	44.9	95	3.02	0.119	0.110	9.4	0.61	4330	2226	242	81	D	S	0.4181	457.4	5.09	1090	22.2	447.0	4.97	1052	22.7	435.3	4.84	1015	23.0	420.0	4.67
90	95	1014	23.7	23.0	22.2	25.8	28.0	3.10	5.9	15.2	0.28	7.87	44.8	94	3.14	0.122	0.112	9.2	0.62	4305	2226	236	80	D	S	0.4593	465.7	4.91	1011	23.1	455.6	4.80	983	23.5	444.5	4.69	954	23.8	430.9	4.54
95	100	944	24.6	23.9	22.7	26.3	28.4	3.19	6.1	15.6	0.28	8.35	44.7	93	3.25	0.124	0.115	9.0	0.62	4280	2226	231	79	D	S	0.5003	472.3	4.73	942	23.9	462.5	4.63	920	24.2	451.7	4.52	898	24.5	439.7	4.40
100	105	882	25.3	24.7	23.1	26.7	28.8	3.28	6.2	15.9	0.28	8.81	44.5	92	3.37	0.126	0.117	8.8	0.62	4256	2226	225	78	D	S	0.5410	477.2	4.55	881	24.7	467.6	4.46	864	25.0	457.2	4.36	847	25.2	446.4	4.26
105	110	829	26.1	25.4	23.6	27.1	29.2	3.37	6.4	16.1	0.28	9.27	44.4	91	3.47	0.128	0.119	8.7	0.63	4232	2226	220	77	D	S	0.5813	481.9	4.39	828	25.4	472.5	4.30	815	25.7	462.4	4.21	801	25.9	452.5	4.12
110	115	782	26.8	26.1	24.0	27.5	29.6	3.45	6.5	16.4	0.28	9.71	44.2	90	3.58	0.130	0.121	8.5	0.63	4210	2226	216	76	D	S	0.6208	485.5	4.23	781	26.2	476.4	4.15	771	26.4	466.5	4.06	760	26.5	457.4	3.98
115	120	740	27.5	26.8	24.4	27.9	29.9	3.53	6.6	16.6	0.28	10.14	44.0	88	3.68	0.132	0.123	8.4	0.64	4189	2226	212	75	D	S	0.6597	488.2	4.07	740	26.8	479.2	4.00	731	27.0	469.5	3.92	722	27.2	461.2	3.85
120	125	703	28.2	27.5	24.8	28.2	30.3	3.60	6.8	16.8	0.29	10.57	43.9	88	3.77	0.134	0.125	8.3	0.64	4170	2226	208	74	D	S	0.6977	490.5	3.93	703	27.5	481.7	3.86	696	27.7	472.2	3.78	689	27.8	464.5	3.72
125	130	670	28.8	28.1	25.1	28.5	30.5	3.67	6.9	16.9	0.29	10.98	43.7	87	3.86	0.136	0.126	8.1	0.64	4154	2226	204	74	D	S	0.7348	492.3	3.79	670	28.1	483.7	3.72	664	28.3	474.2	3.65	658	28.4	467.1	3.60
130	135	640	29.4	28.7	25.4	28.8	30.8	3.74	7.0	17.0	0.29	11.38	43.5	86	3.95	0.137	0.128	8.0	0.65	4139	2226	201	73	D	S	0.7709	493.4	3.66	640	28.7	484.9	3.60	635	28.9	475.6	3.53	630	29.0	468.9	3.48
135	140	613	30.0	29.3	25.7	29.0	31.1	3.80	7.1	17.2	0.29	11.77	43.4	85	4.04	0.139	0.130	7.9	0.65	4125	2226	197	72	D	S	0.8060	494.1	3.53	613	29.3	485.7	3.47	609	29.4	476.5	3.41	605	29.5	470.2	3.36
140	145	589	30.6	29.9	26.0	29.3	31.3	3.86	7.2	17.3	0.29	12.16	43.3	84	4.12	0.141	0.132	7.8	0.65	4114	2226	195	72	D	S	0.8401	494.8	3.42	589	29.9	486.5	3.36	586	30.0	477.4	3.30	582	30.1	471.5	3.25
145	150	567	31.1	30.4	26.3	29.5	31.5	3.92	7.3	17.4	0.29	12.53	43.1	83	4.20	0.142	0.133	7.7	0.66	4105	2226	192	71	D	S	0.8732	495.1	3.30	567	30.4	486.8	3.25	565	30.5	477.9	3.19	561	30.6	472.2	3.15
150	155	548	31.6	30.9	26.5	29.7	31.7	3.98	7.4	17.4	0.29	12.89	43.1	82	4.27	0.144	0.135	7.7	0.66	4097	2226	190	71	D	S	0.9051	496.0	3.20	548	30.9	487.8	3.15	546	31.0	478.9	3.09	543	31.1	473.6	3.06
155	160	530	32.1	31.4	26.8	30.0	31.9	4.04	7.4	17.5	0.30	13.24	43.0	81	4.34	0.145	0.136	7.6	0.67	4091	2226	188	70	D	S	0.9360	496.1	3.10	530	31.4	488.0	3.05	528	31.5	479.1	3.00	526	31.6	474.0	2.96
160	165	513	32.6	31.9	27.0	30.2	32.1	4.09	7.5	17.5	0.30	13.59	42.9	80	4.42	0.146	0.138	7.5	0.67	4086	2226	185	70	C	S	0.9659	495.5	3.01	513	31.9	487.4	2.96	512	31.9	478.6	2.90	510	32.0	473.8	2.87
165	170	498	33.1	32.3	27.2	30.3	32.3	4.14	7.6	17.6	0.30	13.92	42.8	80	4.48	0.148	0.139	7.4	0.67	4083	2226	183	69	C	S	0.9946	495.3	2.92	498	32.3	487.3	2.87	497	32.4	478.6	2.82	495	32.5	473.9	2.79
170	175	484	33.5	32.8	27.4	30.5	32.4	4.19	7.7	17.6	0.30	14.25	42.7	79	4.55	0.149	0.140	7.4	0.68	4081	2226	182	69	C	S	1.0223	494.8	2.83	484	32.8	486.8	2.78	483	32.8	478.1	2.73	481	32.9	473.7	2.71
175	180	472	34.0	33.2	27.6	30.7	32.6	4.24	7.7	17.6	0.30	14.57	42.7	78	4.60	0.150	0.141	7.3	0.68	4081	2226	180	69	C	S	1.0492	495.2	2.75	472	33.2	487.3	2.71	471	33.3	478.6	2.66	470	33.3	474.3	2.64
180	185	460	34.4	33.6	27.8	30.8	32.7	4.28	7.8	17.6	0.30	14.88	42.7	77	4.66	0.151	0.142	7.3	0.69	4082	2226	179	68	C	S	1.0748	494.4	2.67	460	33.6	486.5	2.63	459	33.7	477.9	2.59	458	33.7	473.8	2.56

Table A123. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 22 m Initial Density = 8000 stems/ha																																								
5	10	7724	1.9	1.7	2.6	3.6	3.9	0.73	1.7	0.7	0.68	0.42	2.1	161	1.14	0.315	0.294	1.6	0.02	1199	2314	78	32	B	S	0.0004	2.8	0.28	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	7128	3.7	3.5	4.5	6.2	6.7	0.88	2.3	1.9	0.53	0.62	7.8	131	1.18	0.192	0.176	4.1	0.09	1822	2314	150	44	B	S	0.0026	18.3	1.23	5	8.1	0.1	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	6354	5.4	5.1	6.3	8.6	9.5	1.05	2.6	3.3	0.44	0.89	14.8	123	1.25	0.145	0.133	6.3	0.18	2458	2314	210	56	C	S	0.0077	48.9	2.46	705	8.3	10.7	0.54	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	25	5538	7.0	6.7	8.1	10.9	12.0	1.21	2.9	4.6	0.38	1.21	21.6	119	1.34	0.123	0.112	8.1	0.26	3019	2314	253	67	C	S	0.0163	90.3	3.63	2170	8.9	49.7	2.00	51	12.8	3.0	0.12	4	14.4	0.3	0.01
25	30	4771	8.6	8.1	9.7	12.9	14.2	1.38	3.2	5.8	0.35	1.57	27.5	116	1.45	0.112	0.102	9.4	0.34	3470	2314	282	75	D	S	0.0287	136.9	4.58	2984	9.8	102.0	3.42	357	13.2	25.7	0.86	77	14.8	6.2	0.21
30	35	4094	10.0	9.6	11.2	14.7	16.2	1.55	3.4	7.0	0.32	1.97	32.4	113	1.56	0.106	0.096	10.2	0.40	3811	2314	298	81	D	S	0.0450	184.1	5.28	3162	10.8	155.3	4.45	871	13.7	75.0	2.15	331	15.2	31.6	0.91
35	40	3518	11.4	10.9	12.6	16.3	17.9	1.70	3.7	8.1	0.31	2.40	36.1	111	1.69	0.104	0.094	10.7	0.45	4058	2314	305	84	D	S	0.0651	228.9	5.74	3023	11.8	204.9	5.14	1326	14.4	136.2	3.42	700	15.7	78.5	1.97
40	45	3038	12.8	12.3	13.9	17.7	19.5	1.86	3.9	9.0	0.30	2.85	39.0	109	1.81	0.103	0.093	10.9	0.49	4228	2314	306	87	D	S	0.0888	269.8	6.01	2767	12.9	249.3	5.56	1602	15.1	195.5	4.36	1033	16.2	135.5	3.02
45	50	2642	14.1	13.5	15.0	18.9	20.8	2.01	4.1	9.9	0.29	3.32	41.1	107	1.95	0.103	0.093	11.0	0.52	4341	2314	303	88	D	S	0.1159	306.2	6.14	2489	14.0	288.3	5.78	1712	15.8	247.1	4.96	1256	16.9	191.9	3.85
50	55	2314	15.3	14.7	16.1	20.0	22.0	2.15	4.4	10.8	0.28	3.81	42.7	105	2.08	0.104	0.094	10.9	0.55	4410	2314	297	88	D	S	0.1460	337.8	6.16	2224	15.1	321.8	5.87	1710	16.6	290.0	5.29	1367	17.5	242.2	4.41
55	60	2043	16.5	15.9	17.1	21.0	23.1	2.28	4.6	11.5	0.28	4.30	43.7	103	2.21	0.105	0.096	10.8	0.57	4447	2314	290	88	D	S	0.1787	365.1	6.10	1989	16.2	350.5	5.85	1646	17.5	325.2	5.43	1396	18.3	284.9	4.76
60	65	1818	17.6	17.0	18.0	21.9	24.0	2.41	4.8	12.2	0.28	4.80	44.5	102	2.35	0.107	0.098	10.6	0.58	4461	2314	283	87	D	S	0.2136	388.4	5.99	1784	17.2	374.8	5.78	1553	18.3	354.1	5.46	1372	19.0	320.2	4.94
65	70	1630	18.7	18.1	18.8	22.7	24.8	2.54	5.0	12.8	0.28	5.30	44.9	101	2.48	0.109	0.100	10.4	0.59	4459	2314	275	86	D	S	0.2504	408.1	5.84	1609	18.3	395.4	5.66	1450	19.2	377.8	5.41	1318	19.8	349.1	5.00
70	75	1472	19.8	19.1	19.5	23.4	25.6	2.65	5.2	13.4	0.28	5.79	45.2	99	2.61	0.111	0.102	10.2	0.60	4447	2314	268	85	D	S	0.2886	424.8	5.67	1458	19.3	412.7	5.51	1347	20.0	397.3	5.31	1251	20.5	372.9	4.98
75	80	1338	20.8	20.1	20.2	24.1	26.3	2.77	5.4	13.9	0.28	6.29	45.3	98	2.73	0.113	0.104	9.9	0.61	4427	2314	260	84	D	S	0.3278	438.6	5.49	1329	20.2	427.1	5.35	1250	20.8	413.2	5.17	1179	21.3	392.3	4.91
80	85	1225	21.7	21.1	20.9	24.7	26.9	2.87	5.5	14.4	0.28	6.78	45.4	97	2.86	0.116	0.106	9.7	0.61	4402	2314	253	83	D	S	0.3678	450.5	5.31	1219	21.1	439.5	5.18	1162	21.7	426.6	5.03	1109	22.1	408.5	4.81
85	90	1127	22.6	22.0	21.5	25.3	27.4	2.98	5.7	14.8	0.28	7.27	45.3	95	2.98	0.118	0.109	9.5	0.62	4375	2314	246	82	D	S	0.4081	459.9	5.12	1123	22.0	449.3	5.00	1081	22.5	437.3	4.87	1041	22.8	421.4	4.69
90	95	1043	23.5	22.8	22.0	25.8	28.0	3.07	5.9	15.2	0.28	7.74	45.2	94	3.10	0.120	0.111	9.3	0.62	4347	2314	240	81	D	S	0.4486	467.9	4.93	1040	22.9	457.6	4.82	1009	23.3	446.3	4.70	978	23.6	432.2	4.56
95	100	970	24.3	23.6	22.5	26.3	28.4	3.17	6.0	15.5	0.28	8.21	45.1	93	3.21	0.122	0.113	9.1	0.63	4319	2314	234	80	D	S	0.4891	474.4	4.75	968	23.7	464.4	4.65	944	24.0	453.5	4.54	920	24.3	440.9	4.41
100	105	906	25.1	24.4	23.0	26.7	28.8	3.26	6.2	15.8	0.28	8.67	44.9	92	3.32	0.124	0.115	9.0	0.63	4291	2314	228	79	D	S	0.5292	479.5	4.57	905	24.4	469.8	4.48	886	24.7	459.2	4.38	868	25.0	448.0	4.27
105	110	850	25.9	25.2	23.5	27.1	29.2	3.34	6.3	16.1	0.28	9.12	44.7	91	3.43	0.127	0.117	8.8	0.63	4265	2314	223	78	D	S	0.5689	483.6	4.40	849	25.2	474.1	4.32	835	25.4	463.9	4.22	820	25.7	453.7	4.13
110	115	801	26.6	25.9	23.9	27.5	29.6	3.42	6.5	16.3	0.28	9.56	44.5	90	3.53	0.129	0.119	8.6	0.63	4241	2314	218	77	D	S	0.6081	487.1	4.24	800	25.9	477.8	4.16	789	26.1	467.8	4.07	777	26.3	458.4	3.99
115	120	758	27.3	26.6	24.3	27.8	29.9	3.50	6.6	16.5	0.28	9.99	44.3	89	3.63	0.131	0.121	8.5	0.64	4218	2314	214	76	D	S	0.6466	490.1	4.09	758	26.6	481.0	4.01	749	26.8	471.2	3.93	739	27.0	462.6	3.86
120	125	719	27.9	27.2	24.6	28.1	30.3	3.57	6.7	16.7	0.28	10.41	44.1	88	3.73	0.133	0.123	8.3	0.64	4197	2314	210	75	D	S	0.6841	491.9	3.94	719	27.2	483.0	3.87	711	27.4	473.3	3.79	703	27.6	465.4	3.73
125	130	685	28.6	27.9	25.0	28.4	30.5	3.64	6.8	16.9	0.29	10.82	44.0	87	3.82	0.134	0.125	8.2	0.65	4178	2314	206	74	D	S	0.7209	493.8	3.80	685	27.9	485.1	3.74	679	28.0	475.6	3.66	672	28.2	468.2	3.61
130	135	654	29.2	28.5	25.3	28.7	30.8	3.71	6.9	17.0	0.29	11.22	43.8	86	3.91	0.136	0.127	8.1	0.65	4161	2314	203	73	D	S	0.7567	494.9	3.67	654	28.5	486.3	3.61	649	28.6	476.9	3.54	644	28.7	470.1	3.49
135	140	626	29.8	29.1	25.6	29.0	31.1	3.78	7.0	17.1	0.29	11.61	43.6	85	4.00	0.138	0.129	8.0	0.65	4146	2314	199	73	D	S	0.7915	495.5	3.54	626	29.1	487.0	3.48	622	29.2	477.8	3.42	617	29.3	471.3	3.37
140	145	601	30.3	29.6	25.9	29.2	31.3	3.84	7.1	17.2	0.29	12.00	43.5	84	4.08	0.139	0.130	7.9	0.65	4133	2314	197	72	D	S	0.8255	496.1	3.42	601	29.6	487.7	3.37	598	29.7	478.6	3.30	594	29.8	472.5	3.26
145	150	579	30.9	30.2	26.1	29.5	31.5	3.90	7.2	17.3	0.29	12.37	43.4	83	4.16	0.141	0.132	7.8	0.66	4122	2314	194	72	D	S	0.8584	497.0	3.32	579	30.2	488.6	3.26	576	30.3	479.6	3.20	573	30.3	473.8	3.16
150	155	558	31.4	30.7	26.4	29.7	31.7	3.96	7.3	17.4	0.29	12.73	43.2	82	4.23	0.143	0.133	7.7	0.66	4112	2314	191	71	D	S	0.8901	496.7	3.21	558	30.7	488.4	3.15	556	30.7	479.5	3.10	553	30.8	474.0	3.06
155	160	539	31.9	31.2	26.6	29.9	31.9	4.01	7.4	17.4	0.30	13.08	43.1	82	4.31	0.144	0.135	7.6	0.67	4105	2314	189	70	D	S	0.9208	496.3	3.10	539	31.2	488.2	3.05	537	31.2	479.2	3.00	535	31.3	474.1	2.97
160	165	522	32.4	31.7	26.9	30.1	32.1	4.06	7.5	17.5	0.30	13.42	43.0	81	4.38	0.145	0.136	7.6	0.67	4099	2314	187	70	D	S	0.9506	496.2	3.01	522	31.7	488.1	2.96	520	31.7	479.2	2.91	518	31.8	474.3	2.88
165	170	507	32.8	32.1	27.1	30.3	32.3	4.11	7.5	17.5	0.30	13.76	43.0	80	4.44	0.147	0.138	7.5	0.67	4094	2314	185	70	C	S	0.9793	496.5	2.92	507	32.1	488.4	2.88	506	32.2	479.7	2.82	504	32.2	474.9	2.80
170	175	493	33.3	32.6	27.3	30.5	32.4	4.16	7.6	17.6	0.30	14.08	42.9	79	4.50	0.148	0.139	7.4	0.68	4091	2314	183	69	C	S	1.0069	496.4	2.84	493	32.6	488.4	2.79	492	32.6	479.7	2.74	490	32.7	475.1	2.72
175	180	479	33.7	33.0	27.5	30.6	32.6	4.21	7.7	17.6	0.30	14.40	42.8	78	4.57	0.149	0.140	7.4	0.68	4089	2314	181	69	C	S	1.0334	495.0	2.75	479	33.0	487.1	2.71	478	33.0	478.4	2.66	477	33.1	474.1	2.64
180	185	467	34.1	33.4	27.7	30.8	32.7	4.26	7.7	17.6	0.30	14.71	42.8	78	4.63	0.150	0.141	7.3	0.68	4089	2314	180	69	C	S	1.0591	494.6	2.68	467	33.4	486.8	2.63	466	33.4	478.1	2.59	465	33.5	473.9	2.56
SI = 22 m Initial Density = 9000 stems/ha																																								
5	10	8673	1.8	1.7	2.6	3.6	3.9	0.72	1.6	0.8	0.67	0.41	2.2	165	1.07	0.298	0.278	1.6	0.03	1324	2485	85	36	B	S	0.0003	2.9	0.29	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	7969	3.6	3.4	4.4	6.2	6.7	0.87	2.2	1.9	0.52	0.60	8.2	133	1.12	0.181	0.167	4.3	0.10	1976	2485	161	48	B	S	0.0024	18.9	1.27	3	8.1	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	7062	5.3	5.0	6.2	8.6	9.5	1.03	2.6	3.2	0.43	0.86	15.5	125	1.19	0.138	0.126	6.7	0.19	2632	2485	224	61	C	S	0.0071	50.3	2.53	635	8.3	9.3	0.47	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	25	6117	6.8	6.5	8.0	10.9	12.0	1.19	2.8	4.5	0.38	1.17	22.5	121	1.28	0.118	0.107	8.6	0.28	3202	2485	270	71	D	S	0.0152	92.7	3.73	2187	8.8	47.8	1.92	36	12.8	2.1	0.08	2	14.3	0.1	0.00
25	30	5237	8.3	7.9	9.6	12.9	14.2	1.36	3.1	5.8	0.34	1.51	28.6	117	1.38	0.107	0.097	9.9	0.35	3653	2485	298	79	D	S	0.0268	140.1	4.69	3126	9.6	101.3	3.39	307	13.1	21.7	0.73	58	14.7	4.6	0.15
30	35	4469	9.8	9.3	11.1	14.6	16.2	1.52	3.3	6.9	0.32	1.90	33.5	114	1.50	0.102	0.092	10.7	0.42	3989	2485	314	85	D	S	0.0420	187.8	5.39	3362	10.6	156.0	4.47	820	13.6	69.0	1.98	286	15.1	26.8	0.77
35	40	3822	11.1	10.6	12.4	16.2	17.9	1.67	3.6	8.0	0.31	2.31	37.3	112	1.62	0.100	0.090	11.2	0.47	4227	2485	320	88	D	S	0.0610	233.0	5.84	3232	11.6	206.8	5.19	1312	14.2	130.8	3.28	653	15.5	71.4	1.79
40	45	3286	12.5	11.9	13.7	17.6	19.5	1.82	3.8	8.9	0.29	2.75	40.2	110	1.74	0.099	0.090	11.4	0.51	4387	2485	320	90	D	S	0.0834	274.1	6.11	2963	12.6	252.0	5.62	1627	14.9	191.9	4.28	1009	16.1	128.4	2.86
45	50	2846	13.8	13.2	14.9	18.8	20.8	1.97	4.0	9.8	0.29	3.20	42.3	108	1.87	0.099	0.090	11.4	0.54	4490	2485	316	91	D	S	0.1091	310.6	6.23	2663	13.7	291.4	5.84	1766	15.6	245.4	4.92	1259	16.7	186.0	3.73
50	55	2485	15.0	14.4	15.9	20.0	22.0	2.11	4.2	10.6	0.28	3.67	43.8	106	2.01	0.101	0.091	11.3	0.56	4548	2485	309	91	D	S	0.1378	342.4	6.24	2378	14.8	325.3	5.93	1781	16.4	290.0	5.29	1394	17.3	238.0	4.34
55	60	2188	16.1	15.6	16.9	20.9	23.1	2.24	4.5	11.4	0.28	4.15	44.8	104	2.14	0.102	0.093	11.2	0.58	4576	2485	302	91	D	S	0.1690	369.8	6.18	2123	15.9	354.3	5.92	1724	17.2	326.5	5.45	1439	18.0	282.4	4.72
60	65	1941	17.3	16.7	17.8	21.8	24.0	2.37	4.7	12.1	0.28	4.63	45.5	103	2.27	0.104	0.095	10.9	0.59	4581	2485	293	90	D	S	0.2025	393.0	6.06	1901	16.9	378.7	5.84	1631	18.0	356.1	5.49	1423	18.7	319.0	4.92
65	70	1736	18.3	17.7	18.6	22.6	24.8	2.49	4.9	12.7	0.27	5.11	45.9	101	2.40	0.106	0.097	10.7	0.60	4571	2485	285	89	D	S	0.2377	412.7	5.91	1710	17.9	399.4	5.72	1525	18.8	380.3	5.44	1374	19.5	349.1	5.00
70	75	1564	19.4	18.7	19.3	23.4	25.6	2.61	5.1	13.3	0.27	5.60	46.1	100	2.53	0.108	0.099	10.5	0.61	4551	2485	277	88	D	S	0.2744	429.2	5.73	1547	18.9	416.7	5.57	1418	19.7	400.1	5.34	1307	20.2	373.6	4.99
75	80	1419	20.4	19.7	20.0	24.0	26.3	2.72	5.2	13.8	0.27	6.08	46.2	99	2.65	0.110	0.101	10.2	0.62	4523	2485	268	86	D	S	0.3123	443.1	5.55	1408	19.8	431.1	5.40	1316	20.5	416.4	5.21	1234	21.0	393.7	4.93
80	85	1296	21.3	20.7	20.6	24.6	26.9	2.83	5.4	14.3	0.27	6.56	46.2	97	2.78	0.113	0.103	10.0	0.62	4492	2485	261	85	D	S	0.3508	454.7	5.36	1288	20.7	443.3	5.22	1222	21.3	429.8	5.06	1161	21.7	410.2	4.83
85	90	1190	22.2	21.5	21.2	25.2	27.4	2.93	5.6	14.7	0.27	7.04	46.1	96	2.90	0.115	0.106	9.8	0.63	4459	2485	253	84	D	S	0.3899	464.0	5.16	1185	21.6	453.0	5.04	1136	22.1	440.5	4.90	1090	22.5	423.3	4.71
90	95	1099	23.1	22.4	21.8	25.7	28.0	3.03	5.8	15.0	0.27	7.50	45.9	95	3.02	0.117	0.108	9.6	0.63	4425	2485	247	82	D	S	0.4292	471.7	4.97	1095	22.5	461.1	4.86	1059	22.9	449.3	4.74	1023	23.2	434.1	4.58
95	100	1021	23.9	23.2	22.3	26.2	28.4	3.12	5.9	15.4	0.28	7.96	45.8	94	3.13	0.120	0.110	9.4	0.63	4391	2485	240	81	D	S	0.4686	478.4	4.79	1018	23.3	468.1	4.69	991	23.6	456.8	4.57	963	23.9	443.3	4.44
100	105	952	24.7	24.0	22.8	26.6	28.8	3.21	6.1	15.7	0.28	8.42	45.5	93	3.24	0.122	0.112	9.2	0.64	4358	2485	234	80	D	S	0.5077	483.3	4.61	950	24.0	473.3	4.51	929	24.3	462.5	4.41	907	24.6	450.3	4.29
105	110	892	25.4	24.7	23.2	27.0	29.2	3.29	6.2	16.0	0.28	8.86	45.3	92	3.35	0.124	0.115	9.0	0.64	4327	2485	229	79	D	S	0.5464	487.4	4.44	891	24.8	477.7	4.35	874	25.0	467.2	4.25	857	25.3	456.2	4.15
110	115	839	26.2	25.5	23.6	27.4	29.6	3.37	6.4	16.2	0.28	9.29	45.1	91	3.45	0.126	0.117	8.8	0.64	4298	2485	224	78	D	S	0.5846	490.5	4.27	838	25.5	481.1	4.19	825	25.7	470.8	4.10	811	25.9	460.8	4.01
115	120	793	26.8	26.1	24.0	27.7	29.9	3.45	6.5	16.4	0.28	9.72	44.9	89	3.55	0.128	0.119	8.7	0.64	4271	2485	219	77	D	S	0.6223	493.5	4.12	792	26.2	484.2	4.04	782	26.4	474.2	3.96	771	26.6	465.1	3.88
120	125	751	27.5	26.8	24.4	28.1	30.3	3.52	6.6	16.6	0.28	10.13	44.6	88	3.65	0.130	0.121	8.5	0.65	4246	2485	215	76	D	S	0.6593	495.1	3.97	751	26.8	486.0	3.89	742	27.0	476.1	3.81	733	27.2	467.7	3.75
125	130	714	28.1	27.4	24.7	28.4	30.5	3.59	6.7	16.8	0.28	10.54	44.4	88	3.74	0.132	0.123	8.4	0.65	4223	2485	211	75	D	S	0.6954	496.5	3.82	714	27.4	487.5	3.75	707	27.6	477.9	3.68	699	27.8	470.0	3.62
130	135	681	28.8	28.0	25.0	28.6	30.8	3.66	6.8	16.9	0.29	10.93	44.2	87	3.83	0.134	0.124	8.2	0.65	4202	2485	207	74	D	S	0.7305	497.5	3.69	681	28.0	488.7	3.62	675	28.2	479.2	3.55	669	28.3	471.9	3.50
135	140	651	29.3	28.6	25.3	28.9	31.1	3.73	6.9	17.0	0.29	11.32	44.0	86	3.92	0.136	0.126	8.1	0.65	4184	2485	203	74	D	S	0.7650	498.0	3.56	651	28.6	489.3	3.50	646	28.8	479.9	3.43	641	28.9	473.1	3.38
140	145	625	29.9	29.2	25.6	29.2	31.3	3.79	7.0	17.1	0.29	11.70	43.9	85	4.00	0.137	0.128	8.0	0.66	4168	2485	200	73	D	S	0.7984	499.0	3.44	625	29.2	490.4	3.39	621	29.3	481.1	3.32	617	29.4	474.7	3.28
145	150	600	30.4	29.7	25.9	29.4	31.5	3.85	7.1	17.2	0.29	12.06	43.7	84	4.08	0.139	0.130	7.9	0.66	4153	2485	197	72	D	S	0.8308	498.5	3.33	600	29.7	490.0	3.27	597	29.8	480.9	3.21	593	29.9	474.8	3.17
150	155	578	31.0	30.2	26.1	29.6	31.7	3.91	7.2	17.3	0.29	12.42	43.5	83	4.16	0.141	0.131	7.8	0.66	4141	2485	194	72	D	S	0.8623	498.4	3.22	578	30.2	490.0	3.16	575	30.3	480.9	3.11	572	30.4	475.2	3.07
155	160	558	31.5	30.7	26.4	29.8	31.9	3.96	7.3	17.4	0.29	12.77	43.4	82	4.23	0.142	0.133	7.7	0.66	4130	2485	192	71	D	S	0.8927	498.1	3.12	558	30.7	489.8	3.06	556	30.8	480.9	3.01	553	30.9	475.4	2.97
160	165	540	32.0	31.2	26.6	30.0	32.1	4.02	7.4	17.4	0.30	13.11	43.3	81	4.30	0.143	0.134	7.7	0.67	4122	2485	190	71	D	S	0.9222	498.0	3.02	540	31.2	489.8	2.97	538	31.3	480.8	2.92	536	31.4	475.7	2.89
165	170	524	32.4	31.7	26.8	30.2	32.3	4.07	7.5	17.5	0.30	13.45	43.3	81	4.37	0.145	0.135	7.6	0.67	4115	2485	188	70	D	S	0.9508	498.2	2.93	524	31.7	490.0	2.88	522	31.8	481.1	2.83	520	31.8	476.2	2.80
170	175	508	32.9	32.1	27.0	30.4	32.4	4.12	7.5	17.5	0.30	13.77	43.1	80	4.44	0.146	0.137	7.5	0.67	4109	2485	185	70	C	S	0.9781	496.9	2.84	508	32.1	488.8	2.80	507	32.2	480.0	2.74	505	32.2	475.3	2.72
175	180	494	33.3	32.6	27.2	30.5	32.6	4.16	7.6	17.5	0.30	14.09	43.0	79	4.50	0.147	0.138	7.5	0.68	4105	2485	184	70	C	S	1.0047	496.3	2.76	494	32.6	488.3	2.71	493	32.6	479.5	2.67	491	32.7	475.0	2.64
180	185	481	33.7	33.0	27.4	30.7	32.7	4.21	7.7	17.5	0.30	14.39	43.0	78	4.56	0.149	0.139	7.4	0.68	4103	2485	182	69	C	S	1.0304	495.6	2.68	481	33.0	487.6	2.64	480	33.0	478.9	2.59	479	33.1	474.5	2.57

Table A124. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 22 m Initial Density = 10000 stems/ha																																								
5	10	9619	1.7	1.6	2.6	3.6	3.9	0.72	1.6	0.8	0.67	0.41	2.3	169	1.02	0.283	0.264	1.7	0.03	1447	2650	91	39	B	S	0.0003	3.0	0.30	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	8804	3.5	3.3	4.4	6.2	6.7	0.86	2.1	1.9	0.52	0.59	8.6	135	1.07	0.173	0.159	4.6	0.10	2126	2650	172	52	C	S	0.0022	19.4	1.31	2	7.9	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	7762	5.1	4.8	6.2	8.6	9.5	1.01	2.5	3.2	0.43	0.83	16.1	127	1.14	0.132	0.120	7.1	0.19	2799	2650	238	65	C	S	0.0066	51.6	2.60	567	8.2	8.1	0.41	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	25	6685	6.7	6.3	7.9	10.8	12.0	1.17	2.8	4.5	C.37	1.13	23.3	122	1.22	0.113	0.102	9.0	0.29	3375	2650	285	75	D	S	0.0142	94.7	3.81	2185	8.7	45.9	1.85	26	12.7	1.5	0.06	2	14.0	0.1	0.00
25	30	5692	8.1	7.7	9.5	12.8	14.2	1.33	3.0	5.7	0.34	1.46	29.5	118	1.33	0.103	0.093	10.4	0.37	3824	2650	314	83	D	S	0.0251	142.8	4.78	3244	9.5	100.2	3.36	263	13.1	18.3	0.61	43	14.7	3.4	0.11
30	35	4834	9.5	9.1	11.0	14.6	16.2	1.49	3.2	6.8	0.32	1.83	34.5	115	1.44	0.098	0.089	11.2	0.43	4154	2650	329	89	D	S	0.0395	191.0	5.48	3542	10.4	156.3	4.48	768	13.5	63.3	1.82	246	15.0	22.6	0.65
35	40	4116	10.9	10.4	12.3	16.2	17.9	1.64	3.5	7.9	0.30	2.23	38.4	113	1.56	0.096	0.087	11.6	0.48	4383	2650	334	92	D	S	0.0575	236.5	5.93	3426	11.4	208.0	5.22	1288	14.1	125.1	3.14	606	15.4	64.8	1.63
40	45	3526	12.2	11.7	13.6	17.6	19.5	1.79	3.7	8.8	0.29	2.65	41.2	110	1.68	0.096	0.087	11.8	0.52	4534	2650	333	94	D	S	0.0788	277.8	6.19	3148	12.4	254.0	5.66	1641	14.7	187.8	4.19	978	15.9	121.2	2.70
45	50	3044	13.5	12.9	14.7	18.8	20.8	1.93	3.9	9.7	0.28	3.09	43.3	108	1.81	0.096	0.087	11.8	0.55	4626	2650	328	94	D	S	0.1033	314.5	6.31	2830	13.5	293.9	5.89	1809	15.4	243.1	4.88	1255	16.5	179.9	3.61
50	55	2650	14.7	14.1	15.7	19.9	22.0	2.07	4.1	10.5	0.28	3.55	44.8	106	1.94	0.098	0.088	11.7	0.58	4675	2650	321	94	D	S	0.1307	346.3	6.31	2524	14.5	328.2	5.98	1842	16.2	289.3	5.27	1413	17.1	233.4	4.25
55	60	2326	15.8	15.2	16.7	20.9	23.1	2.21	4.4	11.3	0.28	4.01	45.7	105	2.07	0.099	0.090	11.5	0.59	4694	2650	312	93	D	S	0.1606	373.5	6.24	2250	15.6	357.2	5.97	1792	17.0	326.7	5.46	1473	17.8	279.2	4.66
60	65	2060	16.9	16.3	17.6	21.8	24.0	2.33	4.6	12.0	0.27	4.48	46.4	103	2.20	0.101	0.092	11.3	0.61	4691	2650	303	92	D	S	0.1927	397.0	6.12	2013	16.6	382.0	5.89	1702	17.8	357.4	5.51	1468	18.5	317.3	4.89
65	70	1838	18.0	17.4	18.4	22.6	24.8	2.45	4.8	12.6	0.27	4.95	46.8	102	2.33	0.103	0.094	11.0	0.61	4673	2650	294	91	D	S	0.2266	416.5	5.96	1808	17.6	402.6	5.76	1594	18.6	382.1	5.47	1423	19.2	348.3	4.99
70	75	1653	19.0	18.4	19.1	23.3	25.6	2.57	5.0	13.1	0.27	5.43	47.0	100	2.46	0.106	0.096	10.8	0.62	4645	2650	285	90	D	S	0.2620	433.1	5.79	1633	18.5	420.0	5.61	1484	19.4	402.4	5.37	1358	20.0	373.7	4.99
75	80	1497	20.0	19.4	19.8	24.0	26.3	2.68	5.1	13.7	0.27	5.90	47.0	99	2.58	0.108	0.098	10.5	0.63	4612	2650	276	88	D	S	0.2985	446.9	5.60	1484	19.5	434.5	5.44	1378	20.2	418.9	5.25	1284	20.7	394.4	4.94
80	85	1364	20.9	20.3	20.4	24.6	26.9	2.79	5.3	14.1	0.27	6.37	46.9	98	2.71	0.110	0.101	10.3	0.63	4574	2650	268	87	D	S	0.3359	458.1	5.40	1355	20.4	446.3	5.26	1278	21.0	432.1	5.09	1209	21.4	411.1	4.84
85	90	1251	21.8	21.2	21.0	25.1	27.4	2.89	5.5	14.5	0.27	6.83	46.8	97	2.83	0.113	0.103	10.0	0.63	4535	2650	260	85	D	S	0.3738	467.6	5.20	1245	21.2	456.3	5.08	1188	21.8	443.1	4.93	1136	22.2	424.8	4.73
90	95	1154	22.7	22.0	21.6	25.6	28.0	2.98	5.7	14.9	0.27	7.29	46.6	95	2.94	0.115	0.105	9.8	0.64	4496	2650	253	84	D	S	0.4120	475.4	5.01	1150	22.1	464.5	4.90	1107	22.5	452.2	4.77	1067	22.9	436.0	4.60
95	100	1069	23.5	22.8	22.1	26.1	28.4	3.08	5.8	15.3	0.27	7.74	46.3	94	3.06	0.117	0.108	9.6	0.64	4457	2650	246	83	D	S	0.4502	481.3	4.82	1066	22.9	470.8	4.71	1034	23.3	459.1	4.60	1003	23.6	444.7	4.45
100	105	996	24.3	23.6	22.5	26.5	28.8	3.16	6.0	15.6	0.28	8.19	46.1	93	3.17	0.119	0.110	9.4	0.64	4420	2650	240	82	D	S	0.4884	486.4	4.64	994	23.6	476.2	4.54	969	24.0	465.0	4.43	945	24.3	452.1	4.31
105	110	932	25.0	24.3	23.0	26.9	29.2	3.25	6.1	15.8	0.28	8.62	45.9	92	3.28	0.122	0.112	9.2	0.64	4384	2650	234	80	D	S	0.5262	490.4	4.46	930	24.4	480.5	4.37	911	24.7	469.7	4.28	892	24.9	458.1	4.17
110	115	876	25.7	25.1	23.4	27.3	29.6	3.33	6.3	16.1	0.28	9.05	45.6	91	3.38	0.124	0.114	9.0	0.65	4351	2650	229	79	D	S	0.5636	493.7	4.30	875	25.1	484.1	4.21	860	25.3	473.6	4.12	844	25.6	463.0	4.03
115	120	826	26.4	25.7	23.8	27.7	29.9	3.40	6.4	16.3	0.28	9.47	45.3	90	3.48	0.126	0.116	8.8	0.65	4319	2650	224	78	D	S	0.6005	496.0	4.14	825	25.8	486.5	4.06	813	26.0	476.3	3.97	800	26.2	466.6	3.89
120	125	782	27.1	26.4	24.1	28.0	30.3	3.48	6.5	16.5	0.28	9.88	45.1	89	3.58	0.128	0.118	8.7	0.65	4291	2650	219	77	D	S	0.6367	497.9	3.99	781	26.4	488.6	3.91	772	26.6	478.6	3.83	761	26.8	469.7	3.76
125	130	742	27.7	27.0	24.5	28.3	30.5	3.55	6.6	16.7	0.28	10.28	44.8	88	3.67	0.130	0.120	8.5	0.65	4264	2650	214	76	D	S	0.6722	498.8	3.84	742	27.0	489.7	3.77	734	27.2	479.9	3.70	725	27.4	471.6	3.63
130	135	707	28.3	27.6	24.8	28.6	30.8	3.62	6.7	16.8	0.28	10.67	44.6	87	3.76	0.132	0.122	8.4	0.65	4240	2650	211	75	D	S	0.7069	499.8	3.71	707	27.6	490.8	3.64	700	27.8	481.2	3.57	693	28.0	473.5	3.51
135	140	676	28.9	28.2	25.1	28.8	31.1	3.68	6.8	16.9	0.29	11.05	44.4	86	3.85	0.133	0.124	8.3	0.66	4219	2650	207	75	D	S	0.7408	500.8	3.58	676	28.2	491.9	3.52	670	28.4	482.4	3.45	664	28.5	475.2	3.40
140	145	647	29.5	28.8	25.4	29.1	31.3	3.74	7.0	17.0	0.29	11.43	44.2	85	3.93	0.135	0.126	8.1	0.66	4199	2650	203	74	D	S	0.7737	500.6	3.46	647	28.8	491.9	3.40	642	28.9	482.5	3.33	637	29.0	475.7	3.28
145	150	621	30.0	29.3	25.6	29.3	31.5	3.80	7.0	17.1	0.29	11.79	44.0	84	4.01	0.137	0.127	8.0	0.66	4182	2650	200	73	D	S	0.8056	500.3	3.34	621	29.3	491.8	3.28	617	29.4	482.5	3.22	613	29.5	476.2	3.18
150	155	598	30.6	29.8	25.9	29.5	31.7	3.86	7.1	17.2	0.29	12.15	43.9	84	4.09	0.139	0.129	7.9	0.66	4167	2650	197	73	D	S	0.8368	500.4	3.23	598	29.8	492.0	3.18	595	29.9	482.8	3.12	591	30.0	476.8	3.08
155	160	577	31.1	30.3	26.1	29.7	31.9	3.92	7.2	17.3	0.29	12.49	43.7	83	4.16	0.140	0.130	7.8	0.66	4154	2650	195	72	D	S	0.8671	500.3	3.13	577	30.3	491.9	3.08	574	30.4	482.8	3.02	571	30.5	477.1	2.98
160	165	557	31.6	30.8	26.4	29.9	32.1	3.97	7.3	17.3	0.29	12.83	43.6	82	4.24	0.142	0.132	7.8	0.67	4143	2650	192	71	D	S	0.8962	499.2	3.03	557	30.8	490.9	2.98	555	30.9	481.9	2.92	552	31.0	476.5	2.89
165	170	540	32.0	31.3	26.6	30.1	32.3	4.02	7.4	17.4	0.30	13.16	43.5	81	4.30	0.143	0.133	7.7	0.67	4134	2650	190	71	D	S	0.9244	499.2	2.94	540	31.3	491.0	2.89	538	31.4	482.0	2.84	536	31.4	476.9	2.81
170	175	523	32.5	31.7	26.8	30.3	32.4	4.07	7.5	17.4	0.30	13.48	43.3	80	4.37	0.144	0.135	7.6	0.67	4126	2650	188	71	D	S	0.9518	497.8	2.85	523	31.7	489.6	2.80	521	31.8	480.7	2.75	519	31.9	475.8	2.72
175	180	508	32.9	32.2	27.0	30.4	32.6	4.12	7.5	17.4	0.30	13.80	43.2	79	4.44	0.146	0.136	7.5	0.67	4120	2650	186	70	D	S	0.9781	496.9	2.76	508	32.2	488.8	2.72	507	32.2	480.0	2.67	505	32.3	475.3	2.64
180	185	495	33.3	32.6	27.2	30.6	32.7	4.17	7.6	17.5	0.30	14.11	43.2	79	4.49	0.147	0.137	7.5	0.68	4116	2650	184	70	C	S	1.0036	496.8	2.69	495	32.6	488.8	2.64	494	32.6	480.0	2.60	492	32.7	475.4	2.57
SI = 22 m Initial Density = 15000 stems/ha																																								
5	10	14328	1.5	1.4	2.5	3.6	3.9	0.71	1.5	0.8	0.64	0.39	2.6	186	0.84	0.233	0.216	2.1	0.03	2043	3404	121	56	C	S	0.0002	3.3	0.33	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	12908	3.1	2.9	4.2	6.1	6.7	0.83	1.9	1.9	0.49	0.54	10.0	144	0.88	0.144	0.131	5.6	0.12	2822	3404	221	70	C	S	0.0017	21.4	1.44	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	11148	4.6	4.3	5.9	8.6	9.5	0.96	2.2	3.1	0.41	0.75	18.6	133	0.95	0.111	0.100	8.7	0.23	3547	3404	300	83	D	S	0.0050	56.2	2.83	315	8.0	4.0	0.20	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	25	9396	6.0	5.7	7.5	10.8	12.0	1.10	2.5	4.3	0.36	0.99	26.6	127	1.03	0.096	0.086	10.9	0.33	4130	3404	351	93	D	S	0.0109	102.0	4.10	1973	8.4	35.8	1.44	5	12.6	0.3	0.01	0	0.0	0.0	0.00
25	30	7839	7.4	7.0	9.1	12.7	14.2	1.25	2.7	5.5	0.32	1.28	33.3	122	1.13	0.089	0.079	12.3	0.42	4555	3404	380	100	D	S	0.0194	152.1	5.09	3599	9.0	92.5	3.10	112	12.9	7.5	0.25	9	14.5	0.7	0.02
30	35	6538	8.7	8.2	10.5	14.5	16.2	1.39	2.9	6.5	0.30	1.60	38.5	119	1.24	0.085	0.076	13.1	0.49	4845	3404	392	104	D	S	0.0309	201.7	5.79	4210	9.8	152.7	4.38	504	13.2	39.0	1.12	108	14.8	9.4	0.27
35	40	5480	9.9	9.5	11.7	16.0	17.9	1.53	3.1	7.5	0.29	1.94	42.4	116	1.35	0.084	0.075	13.5	0.54	5028	3404	393	106	D	S	0.0452	247.9	6.22	4210	10.7	208.6	5.23	1121	13.6	98.6	2.47	384	15.1	38.2	0.96
40	45	4631	11.2	10.7	12.9	17.4	19.5	1.67	3.4	8.4	0.28	2.31	45.2	113	1.47	0.085	0.075	13.5	0.58	5132	3404	388	107	D	S	0.0625	289.5	6.45	3926	11.6	257.5	5.74	1614	14.2	164.6	3.67	805	15.5	90.0	2.01
45	50	3951	12.3	11.8	14.0	18.6	20.8	1.81	3.6	9.2	0.28	2.70	47.2	111	1.59	0.086	0.076	13.4	0.61	5180	3404	379	107	D	S	0.0826	326.2	6.54	3548	12.5	299.4	6.00	1917	14.8	226.2	4.54	1168	15.9	149.0	2.99
50	55	3404	13.5	12.9	15.0	19.7	22.0	1.94	3.8	10.0	0.27	3.10	48.5	109	1.71	0.087	0.078	13.2	0.63	5187	3404	368	105	D	S	0.1052	358.0	6.53	3169	13.5	334.9	6.10	2044	15.4	278.7	5.08	1424	16.5	207.0	3.77
55	60	2962	14.6	14.0	15.9	20.7	23.1	2.06	4.0	10.7	0.27	3.51	49.4	107	1.84	0.089	0.080	12.9	0.64	5168	3404	355	104	D	S	0.1300	385.2	6.43	2821	14.4	364.9	6.10	2051	16.1	321.5	5.37	1566	17.1	258.5	4.32
60	65	2600	15.6	15.0	16.8	21.5	24.0	2.18	4.2	11.4	0.27	3.93	49.8	106	1.96	0.091	0.082	12.6	0.65	5130	3404	343	102	D	S	0.1570	408.3	6.29	2512	15.4	390.1	6.01	1982	16.8	355.8	5.49	1615	17.7	302.0	4.66
65	70	2303	16.6	16.0	17.5	22.3	24.8	2.30	4.4	12.0	0.27	4.35	50.1	104	2.08	0.093	0.084	12.3	0.66	5080	3404	331	100	D	S	0.1857	427.7	6.12	2246	16.3	411.1	5.88	1878	17.5	383.4	5.49	1603	18.3	337.7	4.83
70	75	2056	17.6	17.0	18.2	23.0	25.6	2.41	4.6	12.6	0.27	4.78	50.1	103	2.21	0.096	0.086	11.9	0.66	5023	3404	319	98	D	S	0.2159	443.9	5.93	2017	17.2	428.6	5.72	1760	18.2	405.5	5.42	1554	18.9	366.8	4.90
75	80	1850	18.5	17.9	18.9	23.7	26.3	2.52	4.8	13.1	0.27	5.20	49.9	101	2.32	0.098	0.089	11.6	0.66	4962	3404	308	96	D	S	0.2472	457.4	5.73	1824	18.1	443.1	5.55	1640	19.0	423.2	5.30	1486	19.6	390.3	4.89
80	85	1676	19.4	18.8	19.5	24.3	26.9	2.62	4.9	13.6	0.27	5.63	49.7	100	2.44	0.101	0.091	11.3	0.67	4899	3404	298	94	D	S	0.2795	468.5	5.52	1658	18.9	455.0	5.36	1524	19.7	437.5	5.16	1408	20.3	409.3	4.82
85	90	1527	20.3	19.7	20.1	24.8	27.4	2.71	5.1	14.0	0.27	6.05	49.4	99	2.56	0.103	0.093	11.0	0.67	4837	3404	288	92	D	S	0.3128	477.6	5.31	1515	19.8	464.8	5.17	1417	20.4	449.0	5.00	1328	20.9	424.5	4.72
90	95	1401	21.1	20.5	20.6	25.3	28.0	2.81	5.3	14.4	0.27	6.47	49.1	98	2.67	0.105	0.096	10.7	0.67	4775	3404	279	91	D	S	0.3461	484.9	5.11	1389	20.6	472.7	4.98	1316	21.1	458.2	4.83	1249	21.6	436.8	4.60
95	100	1291	21.9	21.3	21.1	25.8	28.4	2.90	5.4	14.7	0.27	6.88	48.7	97	2.78	0.108	0.098	10.4	0.66	4716	3404	270	89	D	S	0.3801	490.7	4.91	1282	21.3	479.0	4.80	1226	21.8	465.5	4.66	1173	22.2	446.7	4.47
100	105	1196	22.7	22.0	21.6	26.2	28.8	2.98	5.6	15.0	0.27	7.29	48.3	96	2.89	0.110	0.100	10.1	0.66	4660	3404	262	87	D	S	0.4141	495.3	4.72	1190	22.1	484.0	4.62	1148	22.5	471.3	4.49	1106	22.9	454.6	4.34
105	110	1114	23.4	22.7	22.0	26.6	29.2	3.07	5.7	15.3	0.27	7.70	47.9	94	3.00	0.113	0.102	9.9	0.66	4606	3404	255	86	D	S	0.4478	498.8	4.54	1109	22.8	487.9	4.44	1075	23.2	475.8	4.33	1043	23.5	460.8	4.19
110	115	1041	24.1	23.4	22.4	27.0	29.6	3.14	5.9	15.6	0.27	8.09	47.6	93	3.10	0.115	0.105	9.7	0.66	4556	3404	248	84	D	S	0.4817	501.5	4.37	1039	23.5	490.9	4.27	1012	23.8	479.3	4.17	986	24.1	465.8	4.06
115	120	977	24.8	24.1	22.8	27.3	29.9	3.22	6.0	15.8	0.27	8.48	47.2	92	3.20	0.117	0.107	9.5	0.66	4509	3404	242	83	D	S	0.5151	503.3	4.20	974	24.1	493.1	4.11	953	24.5	481.9	4.02	931	24.7	469.6	3.92
120	125	921	25.4	24.7	23.1	27.6	30.3	3.29	6.1	16.0	0.28	8.87	46.8	91	3.30	0.119	0.109	9.3	0.66	4465	3404	236	82	D	S	0.5479	504.6	4.04	919	24.8	494.6	3.96	901	25.1	483.7	3.87	884	25.3	472.5	3.78
125	130	870	26.1	25.4	23.4	27.9	30.5	3.36	6.3	16.2	0.28	9.24	46.5	90	3.39	0.121	0.111	9.1	0.66	4424	3404	231	80	D	S	0.5809	505.4	3.89	869	25.4	495.6	3.82	856	25.7	485.0	3.73	841	25.9	474.7	3.66
130	135	825	26.7	26.0	23.8	28.2	30.8	3.43	6.4	16.3	0.28	9.61	46.1	89	3.48	0.123	0.113	8.9	0.66	4386	3404	226	79	D	S	0.6130	505.7	3.75	824	26.0	496.1	3.68	812	26.2	485.8	3.60	801	26.4	476.2	3.53
135	140	785	27.3	26.5	24.1	28.5	31.1	3.49	6.5	16.5	0.28	9.97	45.8	88	3.57	0.125	0.115	8.8	0.66	4352	3404	221	78	D	S	0.6441	505.6	3.61	783	26.6	496.2	3.55	773	26.8	486.1	3.48	762	27.0	477.2	3.41
140	145	749	27.8	27.1	24.3	28.7	31.3	3.56	6.6	16.6	0.28	10.33	45.5	87	3.65	0.127	0.117	8.6	0.66	4320	3404	217	77	D	S	0.6746	505.3	3.49	748	27.1	496.1	3.42	740	27.3	486.1	3.36	731	27.5	477.8	3.30
145	150	716	28.4	27.6	24.6	28.9	31.5	3.62	6.7	16.7	0.28	10.68	45.2	87	3.74	0.129	0.119	8.5	0.66	4291	3404	213	76	D	S	0.7049	504.7	3.37	713	27.7	495.6	3.31	706	27.8	485.8	3.24	699	28.0	478.1	3.19
150	155	686	28.9	28.2	24.8	29.1	31.7	3.67	6.8	16.8	0.29	11.02	45.0	86	3.82	0.131	0.120	8.4	0.66	4265	3404	210	76	D	S	0.7345	503.9	3.25	686	28.2	495.0	3.20	680	28.3	485.3	3.13	673	28.5	478.0	3.09
155	160	659	29.4	28.7	25.1	29.4	31.9	3.73	6.9	16.9	0.29	11.35	44.7	85	3.90	0.133	0.122	8.3	0.66	4241	3404	206	75	D	S	0.7631	502.9	3.15	659	28.7	494.1	3.09	653	28.8	484.6	3.03	648	28.9	477.8	2.99
160	165	635	29.9	29.1	25.3	29.5	32.1	3.78	7.0	16.9	0.29	11.67	44.5	84	3.97	0.134	0.124	8.1	0.66	4220	3404	203	74	D	S	0.7902	501.8	3.04	635	29.2	493.2	2.99	630	29.3	483.8	2.93	626	29.4	477.3	2.90
165	170	613	30.3	29.6	25.5	29.7	32.3	3.84	7.1	17.0	0.29	11.99	44.3	83	4.04	0.136	0.125	8.0	0.66	4201	3404	200	73	D	S	0.8168	500.7	2.95	611	29.6	492.1	2.90	607	29.7	482.8	2.84	603	29.9	476.6	2.81
170	175	592	30.8	30.1	25.7	29.9	32.4	3.89	7.1	17.0	0.29	12.30	44.1	82	4.11	0.137	0.127	7.9	0.66	4184	3404	197	73	D	S	0.8436	499.4	2.86	592	30.1	490.9	2.81	590	30.2	481.7	2.75	585	30.3	475.9	2.72
175	180	573	31.2	30.5	25.9	30.1	32.6	3.93	7.2	17.1	0.29	12.61	43.9	82	4.18	0.139	0.128	7.9	0.66	4169	3404	195	72	D	S	0.8693	498.1	2.77	573	30.5	489.7	2.72	570	30.6	480.6	2.67	567	30.7	475.0	2.64
180	185	556	31.7	30.9	26.1	30.2	32.7	3.98	7.3	17.1	0.30	12.91	43.8	81	4.24	0.140	0.130	7.8	0.66	4156	3404	193	72	D	S	0.8933	496.7	2.69	552	30.9	488.4	2.64	550	31.0	479.3	2.59	548	31.1	474.0	2.56

Table A125. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 22 m Initial Density = 20000 stems/ha																																								
5	10	19004	1.4	1.3	2.4	3.6	3.9	0.70	1.4	0.8	0.62	0.38	2.9	199	0.73	0.203	0.188	2.4	0.04	2616	4083	149	73	D	S	0.0002	3.4	0.34	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	16922	2.9	2.7	4.1	6.1	6.7	0.80	1.8	1.9	0.47	0.51	11.0	150	0.77	0.126	0.115	6.5	0.14	3459	4083	264	87	D	S	0.0013	22.7	1.53	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	14399	4.2	4.0	5.7	8.5	9.5	0.93	2.0	3.1	0.39	0.69	20.4	138	0.83	0.098	0.088	9.9	0.26	4201	4083	351	100	D	S	0.0041	59.2	2.98	158	7.9	1.9	0.10	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	25	11953	5.6	5.2	7.3	10.7	12.0	1.06	2.3	4.2	0.34	0.91	29.0	130	0.91	0.085	0.076	12.3	0.37	4765	4083	405	109	D	S	0.0089	106.5	4.28	1653	8.2	27.2	1.09	1	12.5	0.0	0.00	0	0.0	0.0	0.00
25	30	9835	6.8	6.5	8.7	12.7	14.2	1.19	2.5	5.3	0.32	1.16	36.0	125	1.01	0.080	0.071	13.8	0.46	5152	4083	433	114	D	S	0.0160	157.5	5.27	3647	8.7	82.6	2.77	48	12.7	3.1	0.10	2	14.4	0.2	0.01
30	35	8104	8.1	7.7	10.1	14.4	16.2	1.33	2.7	6.3	0.30	1.45	41.4	121	1.11	0.077	0.069	14.6	0.53	5395	4083	442	117	D	S	0.0256	207.4	5.95	4605	9.4	145.3	4.17	321	13.0	23.7	0.68	47	14.6	4.0	0.11
35	40	6724	9.3	8.8	11.3	15.9	17.9	1.46	2.9	7.2	0.29	1.76	45.3	118	1.22	0.077	0.068	14.9	0.58	5533	4083	440	118	D	S	0.0377	253.7	6.36	4778	10.2	204.1	5.12	900	13.4	74.7	1.87	237	14.9	22.4	0.56
40	45	5633	10.4	10.0	12.4	17.3	19.5	1.59	3.1	8.0	0.28	2.09	48.1	115	1.33	0.077	0.068	14.9	0.62	5594	4083	431	118	D	S	0.0524	295.2	6.58	4540	11.0	255.4	5.69	1473	13.8	139.4	3.11	617	15.2	64.7	1.44
45	50	4770	11.5	11.1	13.5	18.5	20.8	1.72	3.3	8.8	0.27	2.44	50.0	113	1.45	0.078	0.070	14.7	0.65	5603	4083	419	116	D	S	0.0695	331.6	6.65	4139	11.9	298.9	5.99	1887	14.3	204.5	4.10	1012	15.6	119.9	2.40
50	55	4083	12.6	12.1	14.4	19.5	22.0	1.84	3.5	9.6	0.27	2.80	51.2	111	1.56	0.080	0.071	14.4	0.66	5576	4083	404	114	D	S	0.0889	363.0	6.62	3710	12.8	335.4	6.11	2115	14.9	261.7	4.77	1339	16.1	178.8	3.26
55	60	3532	13.7	13.1	15.3	20.5	23.1	1.96	3.7	10.3	0.26	3.17	51.9	109	1.68	0.082	0.073	14.0	0.68	5526	4083	389	112	D	S	0.1104	390.0	6.51	3306	13.7	366.1	6.12	2191	15.5	309.1	5.16	1556	16.6	233.7	3.90
60	65	3085	14.7	14.1	16.1	21.3	24.0	2.08	3.9	10.9	0.26	3.56	52.3	107	1.80	0.084	0.075	13.6	0.68	5460	4083	374	110	D	S	0.1338	412.8	6.36	2943	14.5	391.7	6.04	2164	16.1	347.2	5.35	1665	17.1	281.3	4.34
65	70	2719	15.7	15.1	16.9	22.1	24.8	2.19	4.1	11.5	0.26	3.94	52.3	106	1.92	0.087	0.077	13.2	0.69	5385	4083	360	107	D	S	0.1589	432.1	6.18	2628	15.4	413.1	5.91	2079	16.8	377.5	5.40	1697	17.7	321.1	4.60
70	75	2417	16.6	16.0	17.6	22.8	25.6	2.29	4.3	12.1	0.26	4.33	52.2	104	2.03	0.089	0.079	12.8	0.69	5305	4083	346	105	D	S	0.1854	448.1	5.99	2354	16.3	430.8	5.75	1969	17.5	401.7	5.37	1678	18.3	353.6	4.72
75	80	2165	17.5	16.9	18.2	23.5	26.3	2.40	4.5	12.6	0.26	4.72	52.0	103	2.15	0.092	0.082	12.4	0.69	5224	4083	333	102	D	S	0.2132	461.5	5.78	2123	17.1	445.4	5.58	1844	18.2	421.0	5.27	1623	18.9	380.0	4.76
80	85	1953	18.4	17.7	18.8	24.1	26.9	2.49	4.7	13.1	0.26	5.12	51.7	102	2.26	0.094	0.084	12.1	0.69	5142	4083	321	100	D	S	0.2419	472.4	5.57	1922	17.9	457.4	5.39	1719	18.8	436.4	5.14	1551	19.5	401.2	4.73
85	90	1774	19.2	18.6	19.3	24.6	27.4	2.59	4.8	13.5	0.26	5.51	51.3	101	2.37	0.097	0.087	11.7	0.69	5062	4083	309	98	D	S	0.2713	481.3	5.36	1751	18.7	467.2	5.20	1601	19.5	448.6	4.99	1472	20.1	418.3	4.65
90	95	1621	20.0	19.3	19.9	25.1	28.0	2.68	5.0	13.9	0.26	5.90	50.8	99	2.48	0.099	0.089	11.4	0.68	4985	4083	299	96	D	S	0.3013	488.4	5.15	1603	19.5	475.1	5.01	1491	20.2	458.4	4.83	1391	20.7	432.0	4.55
95	100	1489	20.8	20.1	20.3	25.5	28.4	2.77	5.2	14.2	0.26	6.28	50.4	98	2.59	0.101	0.091	11.1	0.68	4911	4083	289	94	D	S	0.3318	494.1	4.95	1476	20.2	481.4	4.82	1390	20.8	466.1	4.67	1313	21.3	442.9	4.43
100	105	1375	21.5	20.8	20.8	26.0	28.8	2.85	5.3	14.6	0.27	6.66	49.9	97	2.70	0.104	0.093	10.8	0.68	4840	4083	280	92	D	S	0.3625	498.5	4.75	1365	20.9	486.3	4.64	1299	21.5	472.1	4.50	1237	21.9	451.6	4.31
105	110	1275	22.2	21.5	21.2	26.3	29.2	2.93	5.5	14.9	0.27	7.04	49.4	96	2.80	0.106	0.096	10.5	0.68	4774	4083	272	90	D	S	0.3936	501.8	4.57	1270	21.6	490.1	4.46	1220	22.1	476.7	4.34	1170	22.5	458.5	4.17
110	115	1189	22.9	22.2	21.6	26.7	29.6	3.01	5.6	15.1	0.27	7.41	48.9	95	2.90	0.109	0.098	10.2	0.67	4711	4083	264	88	D	S	0.4241	504.2	4.39	1182	22.3	492.9	4.29	1142	22.7	480.3	4.18	1103	23.1	463.9	4.04
115	120	1112	23.6	22.9	22.0	27.0	29.9	3.08	5.7	15.4	0.27	7.78	48.5	94	3.00	0.111	0.100	10.0	0.67	4652	4083	257	87	D	S	0.4549	505.9	4.22	1109	22.9	494.9	4.13	1076	23.3	482.8	4.03	1044	23.6	468.0	3.90
120	125	1044	24.2	23.5	22.3	27.3	30.3	3.15	5.9	15.6	0.27	8.14	48.0	93	3.09	0.113	0.102	9.8	0.67	4597	4083	250	85	D	S	0.4855	506.9	4.06	1042	23.6	496.3	3.97	1014	23.9	484.6	3.88	988	24.2	471.2	3.77
125	130	984	24.8	24.1	22.6	27.6	30.5	3.22	6.0	15.8	0.27	8.50	47.6	92	3.19	0.115	0.104	9.6	0.67	4546	4083	244	84	D	S	0.5157	507.4	3.91	980	24.2	497.0	3.83	957	24.5	485.7	3.74	936	24.7	473.5	3.65
130	135	930	25.4	24.7	22.9	27.9	30.8	3.29	6.1	15.9	0.28	8.85	47.2	91	3.28	0.117	0.106	9.4	0.66	4498	4083	238	82	D	S	0.5456	507.4	3.76	930	24.7	497.3	3.69	911	25.0	486.3	3.61	892	25.3	475.0	3.52
135	140	882	26.0	25.3	23.2	28.2	31.1	3.35	6.2	16.1	0.28	9.19	46.8	90	3.37	0.120	0.108	9.2	0.66	4454	4083	233	81	D	S	0.5749	507.1	3.63	880	25.3	497.2	3.55	865	25.6	486.5	3.48	849	25.8	476.0	3.40
140	145	839	26.5	25.8	23.5	28.4	31.3	3.41	6.3	16.2	0.28	9.53	46.4	89	3.45	0.122	0.110	9.0	0.66	4413	4083	228	80	D	S	0.6036	506.4	3.50	839	25.9	496.8	3.43	826	26.1	486.3	3.36	813	26.3	476.6	3.29
145	150	800	27.1	26.4	23.7	28.6	31.5	3.47	6.4	16.3	0.28	9.86	46.1	88	3.54	0.123	0.112	8.9	0.66	4376	4083	224	79	D	S	0.6319	505.5	3.37	800	26.4	496.1	3.31	789	26.6	485.8	3.24	778	26.8	476.8	3.18
150	155	765	27.6	26.9	24.0	28.9	31.7	3.53	6.5	16.4	0.28	10.19	45.7	87	3.62	0.125	0.114	8.7	0.66	4341	4083	219	78	D	S	0.6593	504.4	3.26	762	26.9	495.1	3.20	753	27.1	485.1	3.13	744	27.3	476.6	3.08
155	160	733	28.1	27.4	24.2	29.1	31.9	3.59	6.6	16.5	0.28	10.51	45.4	86	3.69	0.127	0.116	8.6	0.66	4310	4083	215	77	D	S	0.6864	503.1	3.15	731	27.4	494.0	3.09	724	27.6	484.1	3.03	716	27.7	476.2	2.98
160	165	704	28.6	27.8	24.4	29.2	32.1	3.64	6.7	16.6	0.29	10.82	45.2	86	3.77	0.129	0.117	8.4	0.66	4281	4083	212	76	D	S	0.7126	501.7	3.04	705	27.9	492.7	2.99	698	28.0	483.0	2.93	691	28.2	475.5	2.88
165	170	677	29.1	28.3	24.6	29.4	32.3	3.69	6.8	16.7	0.29	11.13	44.9	85	3.84	0.131	0.119	8.3	0.65	4255	4083	208	75	D	S	0.7388	500.2	2.94	677	28.3	491.4	2.89	671	28.5	481.8	2.84	665	28.6	474.7	2.79
170	175	653	29.5	28.8	24.8	29.6	32.4	3.74	6.9	16.7	0.29	11.43	44.6	84	3.91	0.132	0.121	8.2	0.65	4231	4083	205	75	D	S	0.7636	498.6	2.85	653	28.8	489.9	2.80	647	28.9	480.4	2.75	642	29.1	473.7	2.71
175	180	630	29.9	29.2	25.0	29.8	32.6	3.79	7.0	16.8	0.29	11.72	44.4	83	3.98	0.134	0.122	8.1	0.65	4209	4083	202	74	D	S	0.7889	497.0	2.76	630	29.2	488.3	2.71	625	29.3	479.0	2.66	621	29.5	472.6	2.63
180	185	610	30.4	29.6	25.2	29.9	32.7	3.84	7.1	16.8	0.29	12.01	44.2	82	4.05	0.135	0.124	8.0	0.65	4190	4083	200	73	D	S	0.8120	495.3	2.68	611	29.6	486.7	2.63	606	29.8	477.5	2.58	602	29.9	471.4	2.55
SI = 22 m Initial Density = 30000 stems/ha																																								
5	10	28289	1.2	1.1	2.3	3.6	3.9	0.69	1.3	0.8	0.59	0.37	3.2	221	0.59	0.167	0.154	2.9	0.04	3719	5308	198	105	D	S	0.0001	3.7	0.38	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	24764	2.5	2.4	3.9	6.1	6.7	0.78	1.6	1.8	0.45	0.48	12.5	161	0.64	0.105	0.095	7.9	0.16	4628	5308	339	118	D	S	0.0010	24.4	1.64	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	20630	3.8	3.5	5.4	8.5	9.5	0.88	1.8	2.9	0.37	0.62	23.1	145	0.70	0.082	0.074	11.9	0.30	5345	5308	438	129	D	S	0.0030	62.8	3.16	36	7.8	0.4	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	25	16770	5.0	4.7	6.9	10.6	12.0	1.00	2.0	4.0	0.33	0.80	32.4	136	0.77	0.073	0.064	14.6	0.42	5830	5308	494	135	D	S	0.0066	111.3	4.48	1031	8.0	14.9	0.60	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	30	13544	6.1	5.8	8.2	12.5	14.2	1.12	2.2	4.9	0.30	1.02	39.8	129	0.86	0.069	0.060	16.1	0.52	6119	5308	519	138	D	S	0.0120	162.7	5.45	3301	8.4	63.1	2.11	8	12.6	0.5	0.02	0	0.0	0.0	0.00
30	35	10985	7.2	6.9	9.5	14.2	16.2	1.24	2.4	5.8	0.29	1.26	45.3	125	0.95	0.067	0.059	16.8	0.59	6265	5308	522	138	D	S	0.0193	212.2	6.09	4872	8.9	126.5	3.63	120	12.8	8.4	0.24	9	14.4	0.7	0.02
35	40	8995	8.3	7.9	10.6	15.7	17.9	1.36	2.6	6.7	0.28	1.52	49.2	121	1.05	0.067	0.059	17.0	0.64	6314	5308	514	137	D	S	0.0286	257.6	6.46	5468	9.6	188.8	4.74	529	13.0	40.7	1.02	84	14.7	7.5	0.19
40	45	7453	9.4	9.0	11.7	17.1	19.5	1.48	2.8	7.5	0.27	1.80	51.9	118	1.16	0.068	0.060	16.9	0.67	6297	5308	499	134	D	S	0.0400	298.0	6.64	5419	10.3	243.4	5.43	1105	13.4	95.2	2.12	331	14.9	32.0	0.71
45	50	6252	10.5	10.0	12.7	18.2	20.8	1.59	3.0	8.2	0.27	2.10	53.6	115	1.26	0.069	0.061	16.6	0.70	6238	5308	481	131	D	S	0.0533	333.4	6.69	5057	11.0	289.4	5.80	1651	13.8	159.5	3.20	692	15.2	74.3	1.49
50	55	5308	11.5	11.0	13.6	19.3	22.0	1.71	3.2	8.9	0.26	2.41	54.7	113	1.37	0.071	0.062	16.2	0.71	6152	5308	461	128	D	S	0.0686	364.0	6.63	4590	11.8	327.6	5.97	2044	14.3	221.6	4.04	1074	15.6	127.9	2.33
55	60	4558	12.4	11.9	14.4	20.2	23.1	1.82	3.4	9.6	0.26	2.73	55.2	111	1.48	0.073	0.064	15.7	0.72	6051	5308	441	124	D	S	0.0856	390.1	6.52	4114	12.6	359.4	6.00	2260	14.8	275.5	4.60	1390	16.0	183.7	3.07
60	65	3956	13.4	12.8	15.1	21.1	24.0	1.92	3.6	10.2	0.26	3.06	55.4	109	1.59	0.075	0.066	15.2	0.73	5941	5308	422	121	D	S	0.1042	412.3	6.36	3674	13.4	385.7	5.95	2338	15.3	319.8	4.93	1608	16.4	235.7	3.63
65	70	3466	14.3	13.7	15.8	21.8	24.8	2.03	3.8	10.8	0.26	3.39	55.3	108	1.70	0.078	0.068	14.7	0.73	5827	5308	404	118	D	S	0.1244	431.0	6.17	3272	14.2	407.5	5.83	2318	15.9	355.4	5.09	1729	16.9	281.0	4.02
70	75	3064	15.1	14.6	16.5	22.5	25.6	2.13	4.0	11.3	0.26	3.73	55.1	106	1.81	0.080	0.071	14.2	0.73	5712	5308	387	114	D	S	0.1458	446.7	5.97	2936	14.9	425.5	5.68	2244	16.4	383.7	5.13	1779	17.4	319.0	4.26
75	80	2730	16.0	15.4	17.1	23.1	26.3	2.22	4.1	11.8	0.26	4.07	54.7	105	1.91	0.083	0.073	13.7	0.72	5599	5308	371	111	D	S	0.1684	459.7	5.76	2642	15.7	440.4	5.51	2135	17.0	406.1	5.08	1770	17.9	350.3	4.39
80	85	2451	16.8	16.2	17.7	23.7	26.9	2.31	4.3	12.3	0.26	4.41	54.2	104	2.02	0.085	0.075	13.2	0.72	5488	5308	356	108	D	S	0.1919	470.4	5.54	2388	16.5	452.7	5.33	2013	17.6	423.9	4.99	1729	18.4	375.8	4.43
85	90	2215	17.6	17.0	18.2	24.2	27.4	2.40	4.5	12.7	0.26	4.76	53.7	103	2.12	0.088	0.077	12.8	0.71	5382	5308	343	105	D	S	0.2163	479.0	5.33	2173	17.2	462.6	5.15	1892	18.2	437.9	4.87	1669	18.9	396.4	4.41
90	95	2014	18.3	17.7	18.7	24.7	28.0	2.49	4.6	13.1	0.26	5.10	53.1	101	2.23	0.090	0.080	12.4	0.71	5281	5308	330	103	D	S	0.2413	486.0	5.12	1983	17.9	470.6	4.96	1770	18.8	449.0	4.73	1595	19.5	412.9	4.35
95	100	1842	19.0	18.4	19.1	25.1	28.4	2.57	4.8	13.4	0.26	5.44	52.5	100	2.33	0.093	0.082	12.0	0.70	5185	5308	318	100	D	S	0.2668	491.5	4.92	1818	18.6	476.9	4.78	1656	19.4	457.7	4.58	1517	20.0	426.1	4.27
100	105	1693	19.7	19.1	19.5	25.6	28.8	2.65	4.9	13.8	0.26	5.78	51.9	99	2.43	0.095	0.084	11.7	0.70	5093	5308	307	98	D	S	0.2928	495.7	4.73	1673	19.3	481.9	4.60	1548	20.0	464.5	4.43	1437	20.5	436.7	4.16
105	110	1564	20.4	19.8	19.9	25.9	29.2	2.73	5.1	14.1	0.26	6.12	51.3	98	2.53	0.098	0.086	11.3	0.69	5007	5308	297	96	D	S	0.3190	498.9	4.54	1550	19.9	485.7	4.42	1451	20.6	469.7	4.28	1362	21.1	445.1	4.05
110	115	1451	21.1	20.4	20.3	26.3	29.6	2.80	5.2	14.3	0.27	6.45	50.7	97	2.63	0.100	0.089	11.0	0.69	4926	5308	288	94	D	S	0.3453	501.1	4.36	1442	20.5	488.5	4.25	1363	21.1	473.6	4.12	1292	21.6	451.7	3.93
115	120	1352	21.7	21.1	20.6	26.6	29.9	2.87	5.3	14.6	0.27	6.78	50.1	96	2.72	0.102	0.091	10.8	0.68	4850	5308	279	92	D	S	0.3717	502.6	4.19	1345	21.1	490.5	4.09	1281	21.7	476.5	3.98	1223	22.1	456.8	3.81
120	125	1265	22.3	21.7	21.0	26.9	30.3	2.94	5.5	14.8	0.27	7.11	49.5	95	2.81	0.104	0.093	10.5	0.68	4779	5308	271	90	D	S	0.3979	503.4	4.03	1256	21.7	491.7	3.94	1204	22.2	478.3	3.83	1158	22.6	460.6	3.69
125	130	1187	22.9	22.2	21.3	27.2	30.5	3.01	5.6	15.0	0.27	7.43	49.0	94	2.90	0.107	0.095	10.2	0.67	4712	5308	264	88	D	S	0.4243	503.7	3.88	1182	22.3	492.3	3.79	1139	22.8	479.6	3.69	1101	23.1	463.5	3.57
130	135	1118	23.5	22.8	21.6	27.5	30.8	3.07	5.7	15.2	0.27	7.75	48.5	93	2.99	0.109	0.097	10.0	0.67	4650	5308	257	87	D	S	0.4503	503.4	3.73	1114	22.9	492.5	3.65	1078	23.3	480.3	3.56	1044	23.6	465.4	3.45
135	140	1056	24.1	23.4	21.9	27.7	31.1	3.14	5.8	15.4	0.28	8.06	48.0	92	3.08	0.111	0.099	9.8	0.66	4592	5308	251	85	D	S	0.4761	502.8	3.59	1054	23.4	492.2	3.52	1025	23.8	480.4	3.43	996	24.1	466.7	3.34
140	145	1000	24.6	23.9	22.1	28.0	31.3	3.20	6.0	15.5	0.28	8.37	47.5	91	3.16	0.113	0.101	9.6	0.66	4538	5308	245	84	D	S	0.5019	501.9	3.46	999	23.9	491.5	3.39	974	24.3	480.1	3.31	949	24.6	467.5	3.23
145	150	950	25.1	24.4	22.4	28.2	31.5	3.25	6.1	15.6	0.28	8.67	47.1	91	3.24	0.115	0.103	9.4	0.66	4488	5308	239	82	D	S	0.5271	500.7	3.34	948	24.5	490.6	3.27	928	24.8	479.5	3.20	907	25.0	467.9	3.12
150	155	905	25.6	24.9	22.6	28.4	31.7	3.31	6.2	15.8	0.28	8.97	46.7	90	3.32	0.117	0.105	9.2	0.65	4442	5308	234	81	D	S	0.5517	499.3	3.22	903	25.0	489.4	3.16	885	25.2	478.6	3.09	867	25.5	467.8	3.02
155	160	864	26.1	25.4	22.8	28.6	31.9	3.37	6.3	15.9	0.28	9.27	46.3	89	3.40	0.119	0.107	9.1	0.65	4399	5308	230	80	D	S	0.5760	497.7	3.11	861	25.4	488.0	3.05	846	25.7	477.5	2.99	831	25.9	467.4	2.92
160	165	826	26.6	25.9	23.0	28.8	32.1	3.42	6.4	16.0	0.28	9.56	45.9	88	3.48	0.121	0.108	8.9	0.65	4359	5308	225	79	D	S	0.6005	496.0	3.01	825	25.9	486.5	2.95	812	26.1	476.2	2.89	799	26.4	466.7	2.83
165	170	792	27.1	26.3	23.2	28.9	32.3	3.47	6.4	16.0	0.28	9.85	45.6	87	3.55	0.123	0.110	8.8	0.64	4322	5308	221	78	D	S	0.6239	494.1	2.91	790	26.4	484.8	2.85	778	26.6	474.7	2.79	766	26.8	465.8	2.74
170	175	761	27.5	26.8	23.4	29.1	32.4	3.52	6.5	16.1	0.29	10.13	45.2	86	3.62	0.125	0.112	8.6	0.64	4288	5308	217	77	D	S	0.6468	492.2	2.81	757	26.8	483.0	2.76	748	27.0	473.1	2.71	738	27.2	464.7	2.66
175	180	732	27.9	27.2	23.6	29.3	32.6	3.57	6.6	16.1	0.29	10.41	44.9	85	3.70	0.126	0.113	8.5	0.64	4257	5308	214	76	D	S	0.6697	490.2	2.73	727	27.2	481.1	2.67	719	27.4	471.4	2.62	710	27.6	463.4	2.58
180	185	706	28.4	27.6	23.8	29.4	32.7	3.61	6.7	16.2	0.29	10.68	44.6	85	3.76	0.128	0.115	8.4	0.64	4228	5308	210	75	D	S	0.6914	488.1	2.64	708	27.6	479.2	2.59	700	27.8	469.6	2.54	692	28.0	462.1	2.50

Table A126. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
		SI = 22 m	**Initial Density = 50000 stems/ha**																																					
5	10	46676	1.0	0.9	2.2	3.5	3.9	0.68	1.1	0.8	0.56	0.36	3.5	256	0.46	0.131	0.120	3.6	0.05	5827	7464	285	168	D	S	0.0001	3.8	0.39	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	39968	2.1	2.0	3.6	6.0	6.7	0.75	1.4	1.8	0.42	0.44	14.4	176	0.50	0.083	0.075	9.9	0.19	6725	7464	461	176	D	S	0.0006	25.8	1.74	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	32420	3.2	3.0	5.0	8.4	9.5	0.83	1.6	2.7	0.35	0.55	26.4	155	0.56	0.066	0.059	14.7	0.35	7272	7464	574	179	D	S	0.0020	65.5	3.30	2	7.6	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	25	25691	4.3	4.0	6.3	10.5	12.0	0.93	1.7	3.7	0.32	0.69	36.5	143	0.62	0.059	0.052	17.7	0.48	7528	7464	629	178	D	S	0.0044	113.9	4.58	320	7.8	4.0	0.16	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	30	20301	5.3	5.0	7.5	12.4	14.2	1.03	1.9	4.5	0.29	0.86	44.3	135	0.70	0.057	0.049	19.3	0.58	7591	7464	645	174	D	S	0.0081	163.8	5.48	2146	8.0	33.5	1.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	35	16171	6.3	5.9	8.6	14.0	16.2	1.13	2.1	5.3	0.28	1.04	49.8	129	0.79	0.056	0.049	19.9	0.65	7538	7464	638	169	D	S	0.0130	210.9	6.05	4345	8.4	88.6	2.54	14	12.6	1.0	0.03	0	0.0	0.0	0.00
35	40	13048	7.2	6.9	9.7	15.5	17.9	1.24	2.3	6.0	0.27	1.25	53.6	124	0.88	0.056	0.049	19.9	0.70	7419	7464	619	163	D	S	0.0194	253.4	6.36	5753	8.9	151.3	3.80	151	12.7	10.8	0.27	9	14.4	0.8	0.02
40	45	10681	8.2	7.8	10.6	16.8	19.5	1.34	2.5	6.7	0.27	1.47	56.0	121	0.97	0.058	0.050	19.6	0.73	7264	7464	594	157	D	S	0.0272	291.0	6.49	6253	9.5	209.2	4.66	510	13.0	39.6	0.88	81	14.5	7.1	0.16
45	50	8869	9.1	8.7	11.5	17.9	20.8	1.44	2.7	7.3	0.26	1.71	57.5	118	1.06	0.059	0.051	19.1	0.75	7091	7464	567	152	D	S	0.0365	323.7	6.49	6164	10.1	258.3	5.18	1029	13.3	87.5	1.75	267	14.8	25.7	0.52
50	55	7464	10.0	9.5	12.3	19.0	22.0	1.54	2.8	8.0	0.26	1.96	58.3	115	1.16	0.061	0.053	18.5	0.76	6910	7464	539	146	D	S	0.0471	351.9	6.41	5785	10.7	298.9	5.45	1555	13.6	144.9	2.64	566	15.0	59.3	1.08
55	60	6360	10.8	10.4	13.0	19.9	23.1	1.64	3.0	8.5	0.26	2.21	58.6	113	1.25	0.063	0.054	17.8	0.77	6729	7464	513	141	D	S	0.0591	376.1	6.28	5294	11.3	332.3	5.55	1973	14.0	202.0	3.37	911	15.3	103.7	1.73
60	65	5481	11.7	11.2	13.7	20.7	24.0	1.73	3.2	9.1	0.26	2.48	58.6	111	1.35	0.065	0.056	17.2	0.77	6550	7464	488	136	D	S	0.0724	396.6	6.11	4789	12.0	359.7	5.55	2248	14.4	253.0	3.90	1230	15.7	152.3	2.35
65	70	4772	12.5	12.0	14.3	21.4	24.8	1.82	3.3	9.6	0.26	2.75	58.3	110	1.45	0.068	0.058	16.5	0.76	6377	7464	465	131	D	S	0.0868	414.0	5.93	4290	12.7	382.0	5.47	2391	14.8	296.1	4.24	1483	16.0	199.8	2.86
70	75	4193	13.3	12.7	14.9	22.1	25.6	1.91	3.5	10.1	0.26	3.02	57.9	108	1.54	0.070	0.060	15.9	0.76	6211	7464	443	127	D	S	0.1022	428.7	5.73	3865	13.3	400.6	5.35	2433	15.3	331.2	4.42	1657	16.4	242.9	3.24
75	80	3716	14.0	13.5	15.5	22.7	26.3	2.00	3.7	10.6	0.26	3.30	57.3	107	1.64	0.072	0.062	15.3	0.75	6053	7464	423	122	D	S	0.1186	440.9	5.52	3487	14.0	415.9	5.21	2404	15.7	359.5	4.50	1759	16.8	280.4	3.51
80	85	3318	14.7	14.2	16.0	23.2	26.9	2.08	3.8	11.0	0.26	3.58	56.6	106	1.74	0.075	0.065	14.7	0.74	5902	7464	404	119	D	S	0.1359	450.9	5.31	3156	14.6	428.4	5.05	2333	16.2	382.0	4.50	1803	17.2	312.1	3.68
85	90	2983	15.4	14.9	16.5	23.7	27.4	2.16	4.0	11.4	0.26	3.86	55.9	105	1.83	0.077	0.067	14.2	0.74	5760	7464	387	115	D	S	0.1539	459.2	5.11	2866	15.2	438.6	4.88	2235	16.7	399.9	4.45	1804	17.6	338.4	3.77
90	95	2699	16.1	15.5	16.9	24.2	28.0	2.24	4.1	11.8	0.26	4.14	55.1	104	1.92	0.080	0.069	13.7	0.73	5626	7464	372	112	D	S	0.1726	465.9	4.91	2610	15.9	446.9	4.71	2128	17.2	414.0	4.36	1778	18.0	360.0	3.79
95	100	2456	16.8	16.2	17.3	24.6	28.4	2.31	4.3	12.1	0.26	4.42	54.4	102	2.02	0.082	0.071	13.3	0.72	5500	7464	357	109	D	S	0.1918	471.1	4.72	2388	16.5	453.5	4.54	2012	17.7	425.1	4.26	1727	18.4	377.7	3.78
100	105	2247	17.4	16.8	17.7	25.0	28.8	2.39	4.4	12.5	0.26	4.70	53.6	101	2.11	0.084	0.073	12.8	0.71	5381	7464	344	106	D	S	0.2115	475.2	4.53	2195	17.1	458.7	4.37	1899	18.1	433.8	4.14	1667	18.9	392.0	3.74
105	110	2065	18.1	17.4	18.1	25.4	29.2	2.46	4.6	12.8	0.26	4.98	52.9	101	2.20	0.087	0.075	12.4	0.70	5269	7464	331	103	D	S	0.2316	478.3	4.35	2025	17.6	462.7	4.21	1790	18.6	440.6	4.01	1600	19.3	403.6	3.67
110	115	1907	18.7	18.0	18.4	25.7	29.6	2.53	4.7	13.0	0.26	5.26	52.2	100	2.29	0.089	0.077	12.1	0.70	5165	7464	320	100	D	S	0.2520	480.5	4.18	1875	18.2	465.8	4.06	1687	19.1	445.8	3.88	1531	19.7	412.9	3.59
115	120	1769	19.2	18.6	18.7	26.0	29.9	2.59	4.8	13.3	0.27	5.54	51.5	99	2.38	0.091	0.079	11.7	0.69	5066	7464	310	98	D	S	0.2724	481.9	4.02	1744	18.8	467.9	3.90	1586	19.6	449.3	3.75	1463	20.2	420.2	3.51
120	125	1646	19.8	19.2	19.0	26.3	30.3	2.66	5.0	13.5	0.27	5.81	50.8	98	2.46	0.094	0.081	11.4	0.68	4974	7464	300	96	D	S	0.2933	482.7	3.87	1627	19.3	469.3	3.76	1499	20.1	452.2	3.62	1396	20.6	426.0	3.41
125	130	1538	20.4	19.7	19.3	26.6	30.5	2.72	5.1	13.8	0.27	6.08	50.1	97	2.55	0.096	0.083	11.1	0.67	4888	7464	291	94	D	S	0.3140	482.9	3.72	1524	19.8	470.1	3.62	1418	20.5	454.2	3.50	1326	21.1	430.1	3.31
130	135	1442	20.9	20.2	19.6	26.8	30.8	2.78	5.2	13.9	0.27	6.35	49.5	96	2.63	0.098	0.085	10.8	0.67	4808	7464	282	92	D	S	0.3347	482.7	3.58	1430	20.4	470.3	3.49	1342	21.0	455.4	3.38	1264	21.5	433.5	3.21
135	140	1356	21.4	20.7	19.8	27.1	31.1	2.84	5.3	14.1	0.27	6.62	48.9	95	2.72	0.100	0.087	10.6	0.66	4732	7464	275	90	D	S	0.3555	482.0	3.45	1344	20.9	470.1	3.36	1271	21.5	456.0	3.26	1206	21.9	436.1	3.12
140	145	1279	21.9	21.2	20.1	27.3	31.3	2.89	5.4	14.3	0.27	6.89	48.3	94	2.80	0.102	0.089	10.3	0.65	4661	7464	267	88	D	S	0.3761	481.0	3.32	1270	21.3	469.5	3.24	1208	21.9	456.1	3.15	1152	22.3	437.9	3.02
145	150	1209	22.4	21.7	20.3	27.5	31.5	2.95	5.5	14.4	0.28	7.15	47.7	93	2.88	0.105	0.091	10.1	0.65	4595	7464	261	86	D	S	0.3969	479.8	3.20	1202	21.8	468.6	3.13	1150	22.3	455.8	3.04	1102	22.7	439.0	2.93
150	155	1146	22.9	22.2	20.5	27.7	31.7	3.00	5.6	14.6	0.28	7.41	47.2	92	2.95	0.107	0.093	9.9	0.64	4534	7464	254	85	D	S	0.4174	478.3	3.09	1142	22.3	467.4	3.02	1097	22.8	455.2	2.94	1056	23.1	439.6	2.84
155	160	1090	23.4	22.6	20.7	27.9	31.9	3.05	5.7	14.7	0.28	7.67	46.7	92	3.03	0.109	0.095	9.7	0.63	4476	7464	248	84	D	S	0.4372	476.6	2.98	1084	22.7	466.0	2.91	1046	23.2	454.2	2.84	1010	23.5	439.8	2.75
160	165	1038	23.8	23.1	20.9	28.1	32.1	3.11	5.8	14.8	0.28	7.92	46.2	91	3.10	0.111	0.097	9.5	0.63	4422	7464	243	82	D	S	0.4573	474.7	2.88	1032	23.2	464.4	2.82	1000	23.6	453.0	2.75	969	23.9	439.6	2.67
165	170	991	24.3	23.5	21.1	28.2	32.3	3.15	5.9	14.9	0.28	8.17	45.8	90	3.18	0.112	0.098	9.3	0.62	4372	7464	238	81	D	S	0.4770	472.7	2.78	988	23.6	462.7	2.72	959	24.0	451.6	2.66	932	24.3	439.1	2.58
170	175	948	24.7	24.0	21.3	28.4	32.4	3.20	6.0	15.0	0.29	8.42	45.4	89	3.25	0.114	0.100	9.1	0.62	4325	7464	233	80	D	S	0.4964	470.6	2.69	946	24.0	460.8	2.64	922	24.4	450.0	2.57	898	24.7	438.3	2.51
175	180	908	25.1	24.4	21.4	28.6	32.6	3.25	6.1	15.1	0.29	8.66	45.0	88	3.32	0.116	0.102	9.0	0.62	4281	7464	229	79	D	S	0.5160	468.5	2.60	906	24.4	458.8	2.55	884	24.8	448.3	2.49	863	25.1	437.3	2.43
180	185	872	25.5	24.8	21.6	28.7	32.7	3.29	6.2	15.1	0.29	8.91	44.6	88	3.39	0.118	0.103	8.8	0.61	4241	7464	224	78	D	S	0.5346	466.2	2.52	868	24.8	456.8	2.47	849	25.1	446.5	2.42	830	25.4	436.2	2.36
		SI = 22 m	**Initial Density = 80000 stems/ha**																																					
5	10	73974	0.8	0.7	2.0	3.5	3.9	0.67	1.0	0.9	0.53	0.35	3.7	301	0.37	0.104	0.095	4.1	0.06	8852	10318	401	260	D	S	0.0001	3.7	0.38	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	15	62047	1.8	1.7	3.3	6.0	6.7	0.72	1.2	1.7	0.40	0.41	16.0	193	0.40	0.067	0.060	11.9	0.22	9556	10318	609	256	D	S	0.0004	26.3	1.77	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	20	49127	2.7	2.6	4.6	8.3	9.5	0.79	1.4	2.5	0.34	0.50	29.0	166	0.45	0.054	0.048	17.5	0.39	9713	10318	729	245	D	S	0.0013	65.6	3.30	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	25	38075	3.6	3.4	5.7	10.4	12.0	0.87	1.5	3.3	0.31	0.61	39.7	151	0.51	0.049	0.043	20.8	0.53	9556	10318	776	231	D	S	0.0029	112.0	4.50	41	7.6	0.5	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	30	29538	4.5	4.3	6.8	12.2	14.2	0.95	1.7	4.0	0.29	0.73	47.5	141	0.58	0.048	0.041	22.3	0.63	9260	10318	779	217	D	S	0.0054	158.2	5.30	859	7.8	11.3	0.38	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	35	23184	5.4	5.1	7.8	13.9	16.2	1.04	1.8	4.7	0.28	0.88	52.9	133	0.66	0.047	0.041	22.8	0.70	8916	10318	757	204	D	S	0.0087	200.9	5.76	2836	8.1	46.8	1.34	0	0.0	0.0	0.00	0	0.0	0.0	0.00
35	40	18486	6.2	5.9	8.7	15.3	17.9	1.13	2.0	5.3	0.27	1.04	56.4	128	0.74	0.048	0.041	22.6	0.74	8567	10318	725	192	D	S	0.0129	238.9	5.99	4871	8.4	100.1	2.51	18	12.5	1.2	0.03	0	0.0	0.0	0.00
40	45	14987	7.1	6.7	9.5	16.6	19.5	1.22	2.2	5.9	0.27	1.21	58.6	123	0.82	0.049	0.042	22.1	0.77	8230	10318	688	182	D	S	0.0181	272.0	6.06	6157	8.8	156.1	3.48	124	12.7	8.9	0.20	8	14.3	0.6	0.01
45	50	12345	7.9	7.5	10.3	17.7	20.8	1.30	2.3	6.4	0.26	1.40	59.8	120	0.90	0.051	0.043	21.3	0.78	7912	10318	651	172	D	S	0.0243	300.6	6.03	6661	9.3	206.6	4.14	393	12.9	30.3	0.61	49	14.5	4.4	0.09
50	55	10318	8.6	8.2	11.0	18.6	22.0	1.39	2.5	7.0	0.26	1.59	60.3	117	0.98	0.053	0.045	20.5	0.79	7615	10318	616	164	D	S	0.0315	325.2	5.93	6635	9.8	249.1	4.54	808	13.1	66.6	1.21	168	14.7	15.9	0.29
55	60	8740	9.4	8.9	11.6	19.5	23.1	1.47	2.7	7.5	0.26	1.79	60.4	115	1.07	0.055	0.046	19.7	0.79	7338	10318	582	156	D	S	0.0396	346.3	5.78	6317	10.3	284.0	4.74	1267	13.4	112.3	1.88	376	14.9	38.0	0.63
60	65	7491	10.1	9.6	12.2	20.3	24.0	1.56	2.8	7.9	0.26	2.00	60.1	113	1.16	0.057	0.048	18.9	0.78	7081	10318	551	150	D	S	0.0486	364.3	5.62	5798	10.8	311.9	4.81	1683	13.7	160.4	2.47	646	15.1	69.4	1.07
65	70	6490	10.8	10.3	12.8	21.0	24.8	1.64	3.0	8.4	0.26	2.21	59.7	111	1.24	0.059	0.050	18.1	0.77	6842	10318	522	143	D	S	0.0585	379.6	5.43	5332	11.4	335.4	4.80	2002	14.0	205.8	2.95	928	15.3	106.6	1.53
70	75	5677	11.5	11.0	13.3	21.7	25.6	1.71	3.1	8.8	0.26	2.42	59.0	109	1.33	0.061	0.052	17.4	0.77	6619	10318	496	138	D	S	0.0691	392.5	5.24	4870	11.9	354.5	4.74	2216	14.3	245.8	3.28	1185	15.6	145.6	1.94
75	80	5009	12.2	11.7	13.8	22.2	26.3	1.79	3.3	9.2	0.26	2.64	58.3	108	1.41	0.064	0.054	16.7	0.76	6413	10318	471	132	D	S	0.0805	403.3	5.05	4435	12.4	370.2	4.64	2334	14.7	279.8	3.50	1394	15.9	183.3	2.30
80	85	4454	12.8	12.3	14.2	22.8	26.9	1.86	3.4	9.6	0.26	2.86	57.4	107	1.50	0.066	0.056	16.0	0.75	6220	10318	449	128	D	S	0.0926	412.4	4.86	4039	13.0	383.1	4.51	2380	15.0	307.9	3.63	1549	16.2	217.8	2.57
85	90	3988	13.4	12.9	14.6	23.2	27.4	1.93	3.6	10.0	0.26	3.09	56.6	106	1.58	0.068	0.058	15.4	0.74	6041	10318	429	123	D	S	0.1053	419.9	4.67	3683	13.5	393.6	4.38	2371	15.4	330.8	3.68	1650	16.5	248.4	2.76
90	95	3594	14.0	13.5	15.0	23.7	28.0	2.00	3.7	10.3	0.26	3.31	55.7	105	1.67	0.070	0.060	14.9	0.73	5874	10318	410	119	D	S	0.1185	426.0	4.49	3356	14.0	402.1	4.24	2325	15.8	349.3	3.68	1710	16.8	274.8	2.90
95	100	3258	14.6	14.1	15.4	24.1	28.4	2.07	3.8	10.7	0.27	3.54	54.8	104	1.75	0.073	0.062	14.3	0.72	5718	10318	393	115	D	S	0.1323	430.9	4.31	3078	14.5	409.0	4.10	2254	16.2	364.2	3.65	1732	17.1	297.2	2.98
100	105	2969	15.2	14.6	15.7	24.5	28.8	2.13	4.0	11.0	0.27	3.76	54.0	103	1.84	0.075	0.064	13.8	0.70	5573	10318	377	112	D	S	0.1464	434.7	4.15	2830	15.1	414.6	3.95	2168	16.6	376.1	3.59	1728	17.5	316.1	3.01
105	110	2719	15.8	15.2	16.0	24.8	29.2	2.20	4.1	11.2	0.27	3.99	53.1	102	1.92	0.077	0.066	13.4	0.69	5437	10318	363	108	D	S	0.1610	437.7	3.98	2611	15.6	419.0	3.81	2076	16.9	385.5	3.51	1704	17.8	331.8	3.02
110	115	2502	16.3	15.7	16.3	25.1	29.6	2.26	4.2	11.5	0.27	4.21	52.3	101	2.00	0.080	0.068	12.9	0.68	5310	10318	349	105	D	S	0.1758	439.9	3.83	2416	16.0	422.3	3.68	1964	17.4	392.1	3.41	1666	18.2	344.8	3.00
115	120	2311	16.8	16.2	16.6	25.4	29.9	2.32	4.4	11.8	0.27	4.44	51.5	100	2.08	0.082	0.069	12.5	0.67	5192	10318	337	103	D	S	0.1910	441.3	3.68	2241	16.5	424.8	3.54	1873	17.8	398.0	3.32	1621	18.5	355.5	2.97
120	125	2143	17.4	16.7	16.9	25.7	30.3	2.38	4.5	12.0	0.27	4.66	50.7	99	2.16	0.084	0.071	12.2	0.67	5081	10318	326	100	D	S	0.2063	442.2	3.54	2087	17.0	426.6	3.42	1783	18.2	402.6	3.22	1555	18.9	363.3	2.91
125	130	1995	17.9	17.2	17.1	26.0	30.5	2.43	4.6	12.2	0.27	4.89	50.0	98	2.24	0.086	0.073	11.8	0.66	4977	10318	315	97	D	S	0.2219	442.6	3.41	1949	17.5	427.8	3.29	1696	18.5	406.0	3.13	1501	19.3	370.5	2.85
130	135	1863	18.3	17.7	17.4	26.2	30.8	2.49	4.7	12.4	0.28	5.11	49.2	98	2.32	0.088	0.075	11.5	0.65	4880	10318	305	95	D	S	0.2375	442.5	3.28	1827	17.9	428.5	3.18	1615	18.9	408.6	3.03	1448	19.6	376.4	2.79
135	140	1746	18.8	18.1	17.6	26.4	31.1	2.54	4.8	12.6	0.28	5.33	48.6	97	2.39	0.091	0.077	11.2	0.64	4789	10318	296	93	D	S	0.2532	442.1	3.16	1716	18.4	428.6	3.06	1537	19.3	410.3	2.93	1393	19.9	381.0	2.72
140	145	1640	19.3	18.6	17.8	26.6	31.3	2.59	4.9	12.8	0.28	5.55	47.9	96	2.47	0.093	0.079	10.9	0.63	4703	10318	287	91	D	S	0.2691	441.3	3.05	1614	18.8	428.4	2.96	1462	19.7	411.4	2.84	1339	20.3	384.7	2.66
145	150	1545	19.7	19.0	18.0	26.8	31.5	2.64	5.0	12.9	0.28	5.77	47.3	95	2.54	0.095	0.081	10.6	0.62	4623	10318	279	89	D	S	0.2850	440.3	2.94	1522	19.2	427.9	2.86	1395	20.1	411.9	2.75	1288	20.6	387.5	2.59
150	155	1460	20.2	19.5	18.2	27.0	31.7	2.69	5.1	13.1	0.28	5.98	46.7	95	2.62	0.097	0.082	10.4	0.62	4548	10318	272	87	D	S	0.3007	439.0	2.83	1441	19.7	427.0	2.76	1331	20.4	412.0	2.66	1239	21.0	389.5	2.52
155	160	1382	20.6	19.9	18.4	27.2	31.9	2.74	5.2	13.2	0.28	6.20	46.1	94	2.69	0.099	0.084	10.2	0.61	4478	10318	265	86	D	S	0.3166	437.5	2.74	1364	20.1	425.9	2.66	1270	20.8	411.8	2.58	1189	21.3	391.0	2.45
160	165	1312	21.0	20.3	18.5	27.4	32.1	2.79	5.3	13.3	0.29	6.41	45.6	93	2.76	0.101	0.086	9.9	0.60	4412	10318	259	84	D	S	0.3322	435.9	2.64	1296	20.5	424.7	2.58	1214	21.1	411.2	2.49	1143	21.6	392.0	2.38
165	170	1248	21.4	20.7	18.7	27.5	32.3	2.83	5.4	13.5	0.29	6.62	45.0	92	2.83	0.103	0.088	9.7	0.59	4350	10318	253	83	D	S	0.3478	434.1	2.56	1233	20.9	423.2	2.49	1162	21.5	410.3	2.42	1100	22.0	392.5	2.31
170	175	1190	21.8	21.1	18.9	27.7	32.4	2.88	5.5	13.6	0.29	6.83	44.5	91	2.90	0.105	0.089	9.5	0.59	4292	10318	247	81	D	S	0.3632	432.2	2.47	1179	21.2	421.6	2.41	1116	21.8	409.3	2.34	1061	22.3	392.7	2.25
175	180	1136	22.2	21.5	19.0	27.8	32.6	2.92	5.6	13.6	0.29	7.04	44.1	91	2.97	0.107	0.091	9.3	0.58	4238	10318	242	80	D	S	0.3787	430.2	2.39	1124	21.6	419.9	2.33	1069	22.2	408.0	2.27	1020	22.6	392.5	2.18
180	185	1087	22.6	21.9	19.2	28.0	32.7	2.97	5.7	13.7	0.29	7.25	43.6	90	3.03	0.108	0.093	9.2	0.58	4187	10318	237	79	D	S	0.3938	428.1	2.32	1080	22.0	418.1	2.26	1032	22.5	406.6	2.20	988	22.9	392.1	2.12

Table A127. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 25 m Initial Density = 800 stems/ha																																								
5	9	793	4.0	3.7	3.3	4.1	4.3	0.90	2.7	0.7	0.80	0.65	1.0	102	3.55	0.864	0.819	0.5	0.01	208	557	18	5	A	S	0.0023	1.8	0.19	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	14	779	7.6	7.2	5.9	7.3	7.7	1.27	4.1	2.1	0.65	1.33	3.5	95	3.58	0.494	0.463	1.3	0.04	464	557	39	10	A	S	0.0151	11.8	0.83	320	9.7	6.9	0.48	23	13.2	1.0	0.07	4	14.7	0.2	0.01
15	19	758	10.8	10.2	8.4	10.3	11.0	1.62	5.0	3.9	0.55	2.18	6.9	94	3.63	0.354	0.331	2.1	0.07	780	557	60	17	A	S	0.0427	32.4	1.68	591	11.5	27.7	1.44	220	14.3	16.2	0.84	109	15.7	8.7	0.45
20	24	732	13.5	12.9	10.9	13.0	13.9	1.93	5.6	5.8	0.49	3.11	10.5	93	3.70	0.285	0.266	2.9	0.11	1116	557	79	23	A	S	0.0847	62.0	2.55	665	13.6	57.4	2.37	419	15.8	46.8	1.93	297	16.9	35.2	1.45
25	29	703	16.0	15.3	13.1	15.4	16.5	2.21	6.0	7.5	0.44	4.08	14.2	92	3.77	0.245	0.229	3.5	0.16	1447	557	95	29	A	S	0.1388	97.6	3.33	673	15.7	92.9	3.17	528	17.3	84.1	2.87	436	18.2	72.2	2.47
30	34	673	18.2	17.5	15.1	17.5	18.7	2.47	6.3	9.1	0.41	5.06	17.6	91	3.85	0.220	0.206	4.1	0.21	1757	557	109	34	B	S	0.2025	136.3	3.98	659	17.8	131.2	3.83	574	18.9	123.8	3.61	511	19.6	112.8	3.29
35	39	642	20.3	19.5	16.9	19.3	20.6	2.70	6.6	10.5	0.38	6.02	20.7	91	3.95	0.204	0.192	4.6	0.25	2039	557	120	39	B	S	0.2731	175.3	4.46	635	19.7	170.0	4.33	584	20.5	163.2	4.16	543	21.1	153.5	3.91
40	44	612	22.1	21.4	18.6	21.0	22.3	2.91	6.8	11.7	0.36	6.97	23.5	90	4.04	0.193	0.181	5.0	0.29	2291	557	129	43	B	S	0.3484	213.2	4.82	608	21.5	207.7	4.69	577	22.1	201.1	4.54	551	22.5	192.7	4.35
45	49	584	23.8	23.0	20.0	22.4	23.7	3.10	7.0	12.8	0.35	7.89	25.9	89	4.14	0.185	0.174	5.3	0.33	2513	557	136	46	B	S	0.4269	249.3	5.06	582	23.1	243.5	4.94	563	23.5	237.0	4.81	545	23.9	229.5	4.66
50	54	557	25.3	24.6	21.4	23.7	25.0	3.27	7.2	13.8	0.34	8.79	28.0	88	4.24	0.179	0.169	5.6	0.37	2707	557	142	49	B	S	0.5068	282.3	5.20	556	24.6	276.4	5.09	544	24.9	269.8	4.97	531	25.2	263.0	4.85
55	59	532	26.7	26.0	22.5	24.8	26.1	3.43	7.3	14.6	0.33	9.64	29.9	87	4.34	0.175	0.166	5.8	0.41	2877	557	146	51	C	S	0.5872	312.4	5.27	532	26.0	306.2	5.17	523	26.3	299.5	5.05	515	26.5	293.4	4.95
60	64	509	28.0	27.3	23.6	25.8	27.1	3.58	7.5	15.4	0.32	10.47	31.4	86	4.43	0.172	0.164	5.9	0.44	3025	557	149	53	C	S	0.6670	339.5	5.28	509	27.3	333.2	5.18	503	27.5	326.3	5.08	497	27.7	320.7	4.99
65	69	488	29.2	28.5	24.6	26.7	28.0	3.72	7.6	16.0	0.32	11.26	32.8	85	4.53	0.169	0.162	6.1	0.48	3155	557	152	55	C	S	0.7453	363.7	5.25	488	28.5	357.3	5.16	484	28.7	350.2	5.06	480	28.8	345.1	4.98
70	74	469	30.4	29.6	25.5	27.5	28.8	3.84	7.7	16.6	0.32	12.01	34.0	84	4.62	0.168	0.161	6.2	0.51	3270	557	154	56	C	S	0.8217	385.4	5.19	469	29.6	378.8	5.10	466	29.8	371.7	5.00	463	29.9	366.9	4.94
75	79	452	31.4	30.7	26.3	28.2	29.5	3.96	7.9	17.1	0.31	12.73	35.0	83	4.70	0.167	0.160	6.2	0.54	3372	557	155	58	C	S	0.8960	405.0	5.11	452	30.7	398.3	5.02	450	30.8	391.0	4.93	448	30.9	386.5	4.88
80	84	437	32.4	31.7	27.0	28.9	30.1	4.06	8.0	17.5	0.31	13.42	36.0	83	4.78	0.165	0.159	6.3	0.57	3464	557	156	59	C	S	0.9675	422.8	5.02	437	31.7	416.0	4.94	436	31.7	408.6	4.85	434	31.8	404.4	4.80
85	89	423	33.3	32.6	27.6	29.5	30.7	4.16	8.1	17.9	0.31	14.07	36.8	82	4.86	0.165	0.159	6.4	0.60	3546	557	157	60	C	S	1.0362	438.3	4.91	423	32.6	431.4	4.83	422	32.6	423.9	4.75	421	32.7	419.9	4.70
90	94	410	34.1	33.4	28.3	30.1	31.2	4.26	8.2	18.2	0.31	14.70	37.5	81	4.94	0.164	0.158	6.4	0.63	3621	557	158	60	C	S	1.1020	451.8	4.79	410	33.4	444.8	4.72	410	33.4	437.2	4.64	408	33.5	433.4	4.60
95	99	398	34.9	34.2	28.8	30.6	31.7	4.34	8.3	18.5	0.31	15.29	38.1	80	5.01	0.164	0.158	6.4	0.66	3689	557	158	61	C	S	1.1646	463.5	4.67	398	34.2	456.5	4.60	398	34.2	448.8	4.52	397	34.3	445.2	4.48
100	104	388	35.6	34.9	29.3	31.0	32.1	4.43	8.3	18.8	0.31	15.85	38.7	79	5.08	0.164	0.158	6.5	0.69	3752	557	158	62	C	S	1.2245	475.1	4.56	388	34.9	468.0	4.49	388	34.9	460.2	4.41	387	35.0	456.7	4.38
105	109	379	36.3	35.6	29.8	31.4	32.5	4.50	8.4	19.0	0.30	16.39	39.3	79	5.14	0.163	0.158	6.5	0.72	3811	557	159	62	C	S	1.2813	485.6	4.44	379	35.6	478.5	4.38	379	35.6	470.6	4.31	378	35.7	467.2	4.28
110	114	370	37.0	36.3	30.2	31.8	32.9	4.57	8.5	19.2	0.30	16.91	39.8	78	5.20	0.163	0.158	6.5	0.75	3866	557	159	63	C	S	1.3351	494.0	4.32	370	36.3	486.8	4.26	370	36.3	478.9	4.19	370	36.3	475.7	4.16
115	119	362	37.6	36.9	30.6	32.2	33.2	4.64	8.5	19.3	0.30	17.40	40.2	77	5.26	0.163	0.158	6.6	0.78	3917	557	159	63	C	S	1.3862	501.8	4.21	362	36.9	494.6	4.15	362	36.9	486.5	4.08	362	36.9	483.5	4.05
120	124	355	38.2	37.5	31.0	32.5	33.5	4.70	8.6	19.5	0.30	17.86	40.6	77	5.31	0.163	0.158	6.6	0.81	3966	557	159	63	C	S	1.4346	509.3	4.10	355	37.5	502.0	4.04	355	37.5	493.9	3.97	355	37.5	490.9	3.95
125	129	349	38.7	38.0	31.4	32.8	33.8	4.76	8.6	19.6	0.30	18.31	41.1	76	5.35	0.163	0.158	6.6	0.84	4013	557	160	64	C	S	1.4805	516.7	4.00	349	38.0	509.4	3.94	349	38.0	501.2	3.88	349	38.0	498.3	3.85
130	134	343	39.2	38.5	31.7	33.1	34.1	4.82	8.7	19.7	0.30	18.74	41.5	75	5.40	0.163	0.159	6.6	0.87	4057	557	160	64	C	S	1.5239	522.7	3.89	343	38.5	515.3	3.84	343	38.5	507.0	3.78	343	38.5	504.2	3.76
135	139	337	39.7	39.0	32.0	33.4	34.3	4.87	8.7	19.8	0.31	19.15	41.8	75	5.45	0.163	0.159	6.6	0.90	4100	557	160	65	C	S	1.5647	527.3	3.79	337	39.0	519.9	3.73	337	39.0	511.6	3.67	337	39.0	508.8	3.65
140	144	332	40.2	39.5	32.3	33.6	34.5	4.92	8.8	19.8	0.31	19.54	42.1	74	5.49	0.163	0.159	6.6	0.93	4141	557	160	65	C	S	1.6033	532.3	3.69	332	39.5	524.9	3.64	332	39.5	516.5	3.58	332	39.5	513.8	3.56
145	149	328	40.6	39.9	32.5	33.9	34.8	4.97	8.8	19.9	0.31	19.91	42.5	73	5.52	0.163	0.159	6.7	0.96	4181	557	161	65	C	S	1.6399	537.9	3.60	328	39.9	530.4	3.55	328	39.9	522.0	3.50	328	39.9	519.3	3.48
150	154	323	41.1	40.4	32.8	34.1	35.0	5.02	8.9	19.9	0.31	20.27	42.8	73	5.56	0.163	0.159	6.7	0.99	4219	557	160	65	C	S	1.6743	540.8	3.51	323	40.4	533.3	3.46	323	40.4	524.8	3.40	323	40.4	522.2	3.38
155	159	319	41.5	40.8	33.0	34.3	35.2	5.06	8.9	19.9	0.31	20.62	43.1	72	5.60	0.163	0.159	6.7	1.02	4257	557	161	66	C	S	1.7066	544.4	3.42	319	40.8	536.9	3.37	319	40.8	528.4	3.32	319	40.8	525.8	3.30
160	164	316	41.8	41.2	33.3	34.5	35.3	5.10	8.9	20.0	0.31	20.96	43.5	72	5.63	0.163	0.159	6.7	1.05	4293	557	161	66	C	S	1.7377	549.1	3.34	316	41.2	541.5	3.30	316	41.2	532.9	3.24	316	41.2	530.4	3.23
165	169	313	42.2	41.5	33.5	34.7	35.5	5.14	8.9	20.0	0.31	21.28	43.8	71	5.65	0.163	0.159	6.7	1.08	4329	557	161	67	C	S	1.7665	552.9	3.27	313	41.5	545.3	3.22	313	41.5	536.6	3.17	313	41.5	534.2	3.16
170	174	309	42.6	41.9	33.7	34.9	35.7	5.18	9.0	20.0	0.31	21.59	44.0	71	5.69	0.163	0.159	6.7	1.10	4364	557	161	67	C	S	1.7935	554.2	3.18	309	41.9	546.6	3.14	309	41.9	537.9	3.09	309	41.9	535.5	3.07
175	179	307	42.9	42.2	33.9	35.0	35.8	5.22	9.0	20.0	0.31	21.89	44.4	70	5.71	0.163	0.159	6.8	1.14	4398	557	162	67	C	S	1.8195	558.6	3.12	307	42.2	551.0	3.07	307	42.2	542.2	3.02	307	42.2	539.8	3.01
180	184	304	43.2	42.5	34.0	35.2	36.0	5.25	9.0	19.9	0.31	22.18	44.6	70	5.74	0.163	0.159	6.8	1.16	4432	557	162	67	C	S	1.8441	560.6	3.04	304	42.5	552.8	3.00	304	42.5	544.0	2.95	304	42.5	541.7	2.94
SI = 25 m Initial Density = 1000 stems/ha																																								
5	9	989	3.8	3.5	3.2	4.1	4.3	0.88	2.6	0.7	0.79	0.62	1.1	106	3.18	0.775	0.734	0.6	0.01	246	634	21	6	A	S	0.0020	2.0	0.22	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	14	966	7.2	6.8	5.8	7.2	7.7	1.23	3.9	2.1	0.64	1.24	3.9	97	3.22	0.444	0.416	1.5	0.04	533	634	45	12	A	S	0.0133	12.8	0.90	338	9.4	6.8	0.48	15	13.1	0.7	0.05	2	14.4	0.1	0.01
15	19	932	10.2	9.7	8.3	10.2	11.0	1.56	4.8	4.0	0.54	2.02	7.6	96	3.28	0.320	0.298	2.4	0.08	881	634	69	19	A	S	0.0378	35.2	1.83	693	11.1	29.4	1.53	216	14.1	15.2	0.79	94	15.5	7.2	0.37
20	24	892	12.9	12.3	10.7	12.9	13.9	1.86	5.3	5.8	0.47	2.88	11.6	95	3.35	0.259	0.241	3.2	0.13	1246	634	90	26	A	S	0.0754	67.3	2.77	795	13.1	61.6	2.54	460	15.3	48.0	1.98	305	16.5	34.0	1.40
25	29	847	15.3	14.6	12.9	15.3	16.5	2.13	5.7	7.5	0.42	3.78	15.5	94	3.44	0.224	0.209	4.0	0.18	1599	634	108	32	B	S	0.1244	105.4	3.60	804	15.1	99.7	3.41	601	16.8	88.5	3.02	479	17.8	73.7	2.52
30	34	801	17.4	16.8	14.9	17.4	18.7	2.38	6.0	9.1	0.39	4.70	19.2	93	3.53	0.203	0.189	4.6	0.23	1925	634	122	38	B	S	0.1826	146.3	4.27	780	17.0	140.5	4.10	661	18.3	131.2	3.83	577	19.1	117.6	3.43
35	39	755	19.4	18.7	16.7	19.3	20.6	2.61	6.2	10.5	0.37	5.62	22.4	92	3.64	0.189	0.177	5.1	0.27	2215	634	134	42	B	S	0.2481	187.3	4.77	745	18.9	181.3	4.62	674	19.8	173.2	4.41	618	20.4	161.2	4.10
40	44	712	21.2	20.5	18.3	20.9	22.3	2.81	6.5	11.7	0.35	6.53	25.2	91	3.75	0.179	0.168	5.5	0.32	2469	634	142	46	B	S	0.3187	226.9	5.13	707	20.6	220.7	4.99	664	21.3	213.2	4.82	627	21.8	202.8	4.58
45	49	671	22.9	22.2	19.8	22.3	23.7	3.00	6.7	12.8	0.34	7.42	27.7	90	3.86	0.173	0.163	5.8	0.36	2689	634	149	50	B	S	0.3930	263.7	5.35	668	22.3	257.3	5.22	642	22.8	250.1	5.08	617	23.2	241.0	4.89
50	54	634	24.5	23.7	21.1	23.6	25.0	3.18	6.9	13.7	0.33	8.29	29.8	89	3.97	0.168	0.159	6.0	0.39	2877	634	154	53	C	S	0.4694	297.6	5.48	633	23.8	291.1	5.36	616	24.1	283.9	5.23	599	24.5	275.9	5.08
55	59	600	25.9	25.2	22.3	24.7	26.1	3.34	7.0	14.6	0.32	9.13	31.6	88	4.08	0.165	0.156	6.2	0.43	3039	634	158	55	C	S	0.5468	328.1	5.54	599	25.2	321.4	5.42	588	25.5	314.2	5.30	577	25.7	307.0	5.18
60	64	569	27.2	26.5	23.4	25.7	27.1	3.49	7.2	15.3	0.32	9.95	33.1	87	4.19	0.163	0.155	6.3	0.46	3178	634	160	57	C	S	0.6243	355.2	5.53	569	26.5	348.4	5.42	561	26.7	341.1	5.31	554	26.9	334.7	5.21
65	69	541	28.4	27.7	24.3	26.6	28.0	3.63	7.4	16.0	0.31	10.73	34.4	86	4.30	0.161	0.154	6.4	0.49	3299	634	162	58	C	S	0.7009	379.2	5.47	541	27.7	372.3	5.37	536	27.9	364.9	5.27	530	28.1	358.9	5.18
70	74	516	29.6	28.9	25.2	27.4	28.8	3.75	7.5	16.5	0.31	11.49	35.5	85	4.40	0.160	0.153	6.5	0.53	3404	634	163	59	C	S	0.7760	400.4	5.39	516	28.9	393.5	5.30	513	29.0	385.9	5.20	509	29.1	380.5	5.12
75	79	494	30.7	29.9	26.0	28.2	29.5	3.87	7.6	17.0	0.31	12.21	36.5	85	4.50	0.160	0.153	6.6	0.56	3496	634	164	60	C	S	0.8492	419.5	5.29	494	29.9	412.5	5.20	492	30.0	404.9	5.11	489	30.1	399.9	5.04
80	84	474	31.6	30.9	26.7	28.8	30.1	3.98	7.8	17.5	0.30	12.90	37.3	84	4.59	0.159	0.153	6.6	0.58	3577	634	164	61	C	S	0.9203	436.2	5.18	474	30.9	429.1	5.09	472	31.0	421.3	5.00	470	31.1	416.7	4.94
85	89	456	32.6	31.9	27.4	29.4	30.7	4.09	7.9	17.9	0.30	13.56	38.0	83	4.68	0.159	0.153	6.7	0.61	3651	634	164	62	C	S	0.9886	450.8	5.05	456	31.9	443.7	4.97	455	31.9	435.9	4.88	453	32.0	431.4	4.83
90	94	440	33.4	32.7	28.0	30.0	31.2	4.18	8.0	18.2	0.30	14.19	38.6	82	4.77	0.159	0.153	6.7	0.64	3717	634	165	62	C	S	1.0543	463.9	4.92	440	32.7	456.8	4.85	439	32.8	448.8	4.76	438	32.8	444.7	4.72
95	99	426	34.2	33.5	28.6	30.5	31.7	4.27	8.1	18.5	0.30	14.79	39.2	81	4.85	0.159	0.153	6.7	0.67	3777	634	165	63	C	S	1.1174	476.0	4.80	426	33.5	468.8	4.72	426	33.5	460.8	4.64	425	33.6	456.9	4.60
100	104	413	35.0	34.3	29.1	30.9	32.1	4.36	8.2	18.7	0.30	15.36	39.7	80	4.92	0.159	0.153	6.7	0.70	3833	634	165	63	C	S	1.1775	486.3	4.66	413	34.3	479.0	4.59	413	34.3	471.0	4.52	412	34.4	467.2	4.48
105	109	401	35.7	35.0	29.6	31.3	32.5	4.43	8.2	19.0	0.30	15.91	40.2	80	4.99	0.159	0.154	6.7	0.73	3884	634	164	64	C	S	1.2349	495.2	4.53	401	35.0	487.8	4.46	401	35.0	479.7	4.39	400	35.1	476.1	4.36
110	114	390	36.4	35.7	30.0	31.7	32.9	4.51	8.3	19.1	0.30	16.43	40.6	79	5.06	0.160	0.154	6.7	0.75	3933	634	164	64	C	S	1.2892	502.8	4.40	390	35.7	495.5	4.34	390	35.7	487.3	4.26	389	35.7	483.8	4.23
115	119	381	37.0	36.3	30.4	32.1	33.2	4.58	8.4	19.3	0.30	16.93	41.0	78	5.12	0.160	0.154	6.7	0.78	3979	634	164	65	C	S	1.3412	511.0	4.28	381	36.3	503.6	4.22	381	36.3	495.3	4.15	381	36.3	492.1	4.13
120	124	372	37.6	36.9	30.8	32.4	33.5	4.64	8.5	19.4	0.30	17.41	41.3	77	5.18	0.160	0.155	6.7	0.81	4022	634	164	65	C	S	1.3901	517.1	4.16	372	36.9	509.7	4.10	372	36.9	501.4	4.03	372	36.9	498.3	4.01
125	129	365	38.2	37.5	31.1	32.7	33.8	4.70	8.5	19.6	0.30	17.86	41.8	77	5.23	0.160	0.155	6.8	0.84	4064	634	164	65	C	S	1.4370	524.5	4.06	365	37.5	517.0	4.00	365	37.5	508.6	3.93	365	37.5	505.6	3.91
130	134	357	38.7	38.0	31.5	33.0	34.1	4.76	8.6	19.7	0.30	18.30	42.0	76	5.29	0.160	0.155	6.8	0.86	4103	634	163	65	C	S	1.4807	528.6	3.94	357	38.0	521.2	3.88	357	38.0	512.8	3.82	357	38.0	509.8	3.80
135	139	351	39.2	38.5	31.8	33.3	34.3	4.82	8.6	19.7	0.30	18.72	42.4	75	5.34	0.160	0.156	6.8	0.89	4142	634	164	66	C	S	1.5225	534.4	3.84	351	38.5	526.9	3.78	351	38.5	518.5	3.72	351	38.5	515.6	3.70
140	144	345	39.7	39.0	32.1	33.6	34.5	4.87	8.7	19.8	0.30	19.12	42.7	75	5.38	0.160	0.156	6.8	0.92	4179	634	164	66	C	S	1.5620	538.9	3.74	345	39.0	531.4	3.68	345	39.0	522.9	3.62	345	39.0	520.1	3.61
145	149	339	40.2	39.5	32.3	33.8	34.8	4.92	8.7	19.9	0.30	19.50	42.9	74	5.43	0.161	0.156	6.8	0.95	4215	634	163	66	C	S	1.5994	542.2	3.63	339	39.5	534.6	3.58	339	39.5	526.1	3.52	339	39.5	523.3	3.51
150	154	334	40.6	39.9	32.6	34.0	35.0	4.97	8.8	19.9	0.30	19.87	43.2	73	5.47	0.161	0.156	6.8	0.97	4250	634	163	66	C	S	1.6347	546.0	3.54	334	39.9	538.4	3.49	334	39.9	529.8	3.43	334	39.9	527.1	3.42
155	159	330	41.0	40.3	32.8	34.2	35.2	5.01	8.8	19.9	0.30	20.23	43.6	73	5.50	0.161	0.157	6.8	1.00	4284	634	164	67	C	S	1.6682	550.5	3.46	330	40.3	542.8	3.41	330	40.3	534.2	3.35	330	40.3	531.6	3.34
160	164	326	41.4	40.7	33.0	34.4	35.3	5.05	8.8	20.0	0.31	20.57	43.9	72	5.54	0.161	0.157	6.8	1.03	4318	634	164	67	C	S	1.6997	554.1	3.37	326	40.7	546.4	3.33	326	40.7	537.7	3.27	326	40.7	535.1	3.26
165	169	322	41.8	41.1	33.3	34.6	35.5	5.09	8.9	20.0	0.31	20.90	44.1	72	5.57	0.161	0.157	6.8	1.06	4351	634	164	67	C	S	1.7295	556.9	3.29	322	41.1	549.2	3.24	322	41.1	540.4	3.19	322	41.1	537.9	3.18
170	174	318	42.1	41.5	33.5	34.8	35.7	5.13	8.9	20.0	0.31	21.22	44.4	71	5.61	0.161	0.157	6.8	1.08	4384	634	164	67	C	S	1.7572	558.8	3.21	318	41.5	551.1	-3.16	318	41.5	542.3	3.11	318	41.5	539.9	3.10
175	179	315	42.5	41.8	33.6	34.9	35.8	5.17	8.9	19.9	0.31	21.53	44.7	71	5.63	0.161	0.157	6.9	1.11	4415	634	164	68	C	S	1.7841	562.0	3.13	315	41.8	554.2	3.09	315	41.8	545.4	3.04	315	41.8	542.9	3.03
180	184	312	42.8	42.2	33.8	35.1	36.0	5.21	8.9	19.9	0.31	21.83	45.0	70	5.66	0.161	0.157	6.9	1.14	4447	634	164	68	C	S	1.8090	564.4	3.06	312	42.2	556.6	3.02	312	42.2	547.8	2.97	312	42.2	545.4	2.96

Table A128. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 25 m Initial Density = 1600 stems/ha																																								
5	9	1574	3.3	3.1	3.2	4.1	4.3	0.84	2.4	0.7	0.76	0.57	1.4	115	2.52	0.617	0.581	0.8	0.01	353	824	29	9	A	S	0.0015	2.3	0.25	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	14	1516	6.4	6.0	5.6	7.2	7.7	1.14	3.5	2.2	0.61	1.07	4.9	104	2.57	0.357	0.332	1.9	0.05	714	824	61	16	A	S	0.0101	15.3	1.07	344	9.0	5.9	0.41	5	12.7	0.2	0.01	0	0.0	0.0	0.00
15	19	1436	9.1	8.6	8.1	10.2	11.0	1.44	4.2	4.0	0.51	1.72	9.4	102	2.64	0.259	0.240	3.1	0.10	1139	824	92	25	A	S	0.0290	41.6	2.16	938	10.3	32.2	1.67	179	13.6	11.5	0.60	56	15.1	4.0	0.21
20	24	1342	11.6	11.0	10.4	12.9	13.9	1.71	4.7	5.8	0.44	2.44	14.1	100	2.73	0.212	0.196	4.2	0.16	1568	824	118	33	B	S	0.0586	78.7	3.24	1134	12.0	70.0	2.88	517	14.6	47.3	1.95	289	15.9	28.7	1.18
25	29	1243	13.8	13.2	12.5	15.2	16.5	1.97	5.1	7.5	0.40	3.22	18.6	99	2.84	0.186	0.172	5.0	0.22	1968	824	138	40	B	S	0.0982	122.1	4.17	1150	13.8	113.9	3.89	757	15.8	95.3	3.26	546	16.9	72.8	2.49
30	34	1145	15.9	15.2	14.5	17.3	18.7	2.20	5.4	9.0	0.37	4.03	22.7	98	2.96	0.171	0.158	5.7	0.27	2320	824	154	46	B	S	0.1465	167.7	4.89	1101	15.6	159.8	4.66	866	17.1	145.1	4.23	712	18.0	123.9	3.62
35	39	1053	17.8	17.1	16.3	19.1	20.6	2.42	5.6	10.4	0.35	4.86	26.2	96	3.08	0.161	0.150	6.2	0.32	2621	824	165	51	C	S	0.2019	212.6	5.41	1031	17.4	204.8	5.22	892	18.5	192.9	4.91	788	19.2	174.4	4.44
40	44	968	19.6	18.9	17.9	20.7	22.3	2.63	5.9	11.6	0.33	5.69	29.1	95	3.21	0.155	0.144	6.6	0.37	2872	824	173	55	C	S	0.2632	254.8	5.76	957	19.0	247.0	5.58	874	19.9	236.7	5.35	805	20.5	221.1	4.99
45	49	892	21.2	20.5	19.3	22.2	23.7	2.81	6.1	12.7	0.32	6.52	31.6	94	3.35	0.151	0.141	6.8	0.41	3080	824	178	58	C	S	0.3289	293.4	5.95	886	20.6	285.7	5.80	835	21.3	276.3	5.61	791	21.7	263.1	5.34
50	54	824	22.8	22.1	20.6	23.4	25.0	2.99	6.3	13.6	0.31	7.34	33.5	93	3.48	0.149	0.139	7.0	0.44	3251	824	181	60	C	S	0.3979	327.9	6.04	821	22.1	320.1	5.90	789	22.6	311.2	5.73	760	23.0	299.9	5.53
55	59	765	24.2	23.5	21.8	24.5	26.1	3.15	6.5	14.4	0.31	8.14	35.2	91	3.62	0.147	0.138	7.2	0.47	3391	824	183	62	C	S	0.4689	358.7	6.05	763	23.6	350.9	5.92	743	23.9	342.3	5.78	723	24.2	332.4	5.61
60	64	713	25.5	24.9	22.8	25.5	27.1	3.30	6.7	15.2	0.30	8.93	36.6	90	3.75	0.147	0.138	7.2	0.50	3507	824	184	64	C	S	0.5410	385.7	6.00	712	24.9	377.9	5.88	699	25.1	369.4	5.75	685	25.4	360.7	5.61
65	69	667	26.8	26.1	23.8	26.4	28.0	3.45	6.9	15.8	0.30	9.70	37.6	89	3.87	0.147	0.138	7.3	0.53	3604	824	184	65	C	S	0.6130	408.9	5.90	667	26.1	401.1	5.79	658	26.3	392.7	5.67	648	26.5	385.0	5.56
70	74	627	28.0	27.3	24.7	27.2	28.8	3.58	7.0	16.4	0.30	10.44	38.6	88	3.99	0.147	0.139	7.3	0.56	3685	824	183	65	C	S	0.6847	429.3	5.78	627	27.3	421.6	5.68	621	27.4	413.2	5.56	614	27.6	406.2	5.47
75	79	592	29.1	28.4	25.4	28.0	29.5	3.70	7.2	16.9	0.30	11.15	39.3	87	4.11	0.147	0.139	7.3	0.59	3755	824	183	66	C	S	0.7552	447.1	5.64	592	28.4	439.4	5.54	588	28.5	431.0	5.44	583	28.6	424.6	5.36
80	84	561	30.1	29.4	26.2	28.6	30.1	3.81	7.3	17.4	0.29	11.84	39.9	86	4.22	0.148	0.140	7.3	0.61	3815	824	182	66	C	S	0.8242	462.4	5.49	561	29.4	454.6	5.39	558	29.5	446.2	5.29	554	29.6	440.4	5.23
85	89	534	31.1	30.4	26.8	29.2	30.7	3.92	7.5	17.8	0.29	12.50	40.5	85	4.33	0.148	0.141	7.3	0.63	3868	824	181	67	C	S	0.8914	476.0	5.33	534	30.4	468.2	5.24	532	30.4	459.8	5.15	529	30.5	454.4	5.09
90	94	510	32.0	31.3	27.4	29.8	31.2	4.02	7.6	18.1	0.29	13.14	41.0	84	4.43	0.149	0.142	7.2	0.66	3915	824	179	67	C	S	0.9563	487.7	5.17	510	31.3	479.9	5.09	509	31.3	471.5	5.00	506	31.4	466.4	4.95
95	99	489	32.8	32.1	28.0	30.3	31.7	4.12	7.7	18.4	0.29	13.74	41.4	83	4.52	0.149	0.143	7.2	0.68	3958	824	178	67	C	S	1.0188	498.2	5.02	489	32.1	490.5	4.94	488	32.2	482.0	4.86	486	32.2	477.2	4.81
100	104	470	33.6	32.9	28.5	30.7	32.1	4.20	7.8	18.7	0.29	14.33	41.7	82	4.61	0.150	0.144	7.2	0.71	3998	824	177	67	C	S	1.0789	507.1	4.86	470	32.9	499.4	4.79	469	33.0	490.8	4.71	468	33.0	486.4	4.66
105	109	453	34.4	33.7	29.0	31.1	32.5	4.29	7.9	18.9	0.29	14.89	42.0	81	4.70	0.151	0.145	7.2	0.73	4034	824	176	67	C	S	1.1366	514.9	4.71	453	33.7	507.1	4.64	453	33.7	498.6	4.56	452	33.7	494.4	4.52
110	114	438	35.1	34.4	29.4	31.5	32.9	4.36	8.0	19.1	0.29	15.42	42.3	81	4.78	0.152	0.145	7.1	0.75	4069	824	175	68	C	S	1.1918	522.0	4.57	438	34.4	514.2	4.50	438	34.4	505.6	4.42	437	34.4	501.6	4.39
115	119	424	35.8	35.1	29.9	31.9	33.2	4.44	8.1	19.2	0.29	15.94	42.6	80	4.86	0.152	0.146	7.1	0.78	4102	824	174	68	C	S	1.2441	527.5	4.42	424	35.1	519.8	4.36	424	35.1	511.2	4.29	423	35.1	507.4	4.25
120	124	412	36.4	35.7	30.2	32.2	33.5	4.51	8.2	19.4	0.29	16.43	42.8	79	4.93	0.153	0.147	7.1	0.80	4134	824	173	68	C	S	1.2942	533.2	4.29	412	35.7	525.5	4.23	412	35.7	516.9	4.16	411	35.7	513.2	4.13
125	129	401	37.0	36.3	30.6	32.5	33.8	4.57	8.3	19.5	0.30	16.90	43.1	78	4.99	0.153	0.148	7.1	0.82	4164	824	172	68	C	S	1.3419	538.1	4.16	401	36.3	530.4	4.10	401	36.3	521.7	4.04	401	36.3	518.2	4.01
130	134	391	37.5	36.9	30.9	32.8	34.1	4.63	8.3	19.6	0.30	17.35	43.3	78	5.06	0.154	0.148	7.1	0.85	4194	824	172	68	C	S	1.3872	542.4	4.04	391	36.9	534.6	3.98	391	36.9	526.0	3.92	391	36.9	522.6	3.89
135	139	382	38.1	37.4	31.2	33.1	34.3	4.69	8.4	19.7	0.30	17.78	43.5	77	5.12	0.155	0.149	7.1	0.87	4223	824	171	68	C	S	1.4301	546.3	3.92	382	37.4	538.6	3.87	382	37.4	529.9	3.80	382	37.4	526.6	3.78
140	144	374	38.6	37.9	31.5	33.3	34.5	4.75	8.5	19.8	0.30	18.20	43.7	76	5.17	0.155	0.150	7.0	0.89	4252	824	171	68	C	S	1.4711	550.2	3.81	374	37.9	542.4	3.76	374	37.9	533.7	3.70	374	37.9	530.5	3.68
145	149	367	39.1	38.4	31.8	33.6	34.8	4.80	8.5	19.8	0.30	18.60	44.0	75	5.22	0.155	0.150	7.0	0.92	4280	824	170	68	C	S	1.5098	554.1	3.71	367	38.4	546.3	3.66	367	38.4	537.5	3.60	367	38.4	534.5	3.58
150	154	360	39.5	38.9	32.1	33.8	35.0	4.85	8.6	19.8	0.30	18.99	44.2	75	5.27	0.156	0.151	7.0	0.94	4308	824	170	68	C	S	1.5467	556.8	3.61	360	38.9	549.0	3.56	360	38.9	540.1	3.50	360	38.9	537.2	3.48
155	159	354	40.0	39.3	32.3	34.0	35.2	4.90	8.6	19.9	0.30	19.36	44.4	74	5.31	0.156	0.151	7.0	0.97	4335	824	169	69	C	S	1.5814	559.8	3.51	354	39.3	552.0	3.47	354	39.3	543.1	3.41	354	39.3	540.3	3.39
160	164	348	40.4	39.7	32.5	34.2	35.3	4.94	8.6	19.9	0.30	19.71	44.6	73	5.36	0.157	0.152	7.0	0.99	4362	824	169	69	C	S	1.6144	561.8	3.42	348	39.7	553.9	3.37	348	39.7	545.1	3.32	348	39.7	542.3	3.30
165	169	343	40.8	40.1	32.8	34.4	35.5	4.99	8.7	19.9	0.30	20.06	44.9	73	5.40	0.157	0.152	7.0	1.01	4390	824	169	69	C	S	1.6455	564.4	3.33	343	40.1	556.6	3.29	343	40.1	547.6	3.24	343	40.1	544.9	3.22
170	174	338	41.2	40.5	33.0	34.6	35.7	5.03	8.7	19.9	0.30	20.39	45.0	72	5.44	0.157	0.152	7.0	1.04	4417	824	169	69	C	S	1.6751	566.2	3.25	338	40.5	558.3	3.20	338	40.5	549.3	3.15	338	40.5	546.7	3.14
175	179	333	41.6	40.9	33.1	34.7	35.8	5.07	8.8	19.9	0.30	20.71	45.2	72	5.48	0.158	0.153	7.0	1.06	4443	824	168	69	C	S	1.7027	567.0	3.16	333	40.9	559.2	3.12	333	40.9	550.2	3.07	333	40.9	547.6	3.05
180	184	329	41.9	41.2	33.3	34.9	36.0	5.11	8.8	19.9	0.30	21.02	45.4	71	5.51	0.158	0.153	7.0	1.08	4470	824	168	69	C	S	1.7292	568.9	3.09	329	41.2	561.0	3.04	329	41.2	552.0	3.00	329	41.2	549.5	2.98
SI = 25 m Initial Density = 2000 stems/ha																																								
5	9	1961	3.1	2.9	3.1	4.1	4.3	0.82	2.3	0.8	0.75	0.54	1.5	119	2.26	0.554	0.521	0.9	0.02	419	932	34	11	A	S	0.0013	2.5	0.27	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	14	1876	6.1	5.7	5.6	7.2	7.7	1.11	3.4	2.2	0.59	1.00	5.4	107	2.31	0.321	0.299	2.2	0.06	822	932	70	19	A	S	0.0088	16.5	1.16	325	8.8	5.3	0.37	2	12.5	0.1	0.01	0	0.0	0.0	0.00
15	19	1759	8.6	8.2	8.0	10.1	11.0	1.39	4.0	4.0	0.49	1.59	10.3	104	2.38	0.235	0.217	3.5	0.11	1286	932	105	28	A	S	0.0255	44.8	2.32	1061	10.0	33.0	1.71	150	13.4	9.3	0.48	38	14.9	2.6	0.13
20	24	1624	11.0	10.5	10.3	12.8	13.9	1.65	4.4	5.8	0.43	2.26	15.4	103	2.48	0.194	0.179	4.7	0.18	1747	932	133	37	B	S	0.0519	84.3	3.47	1328	11.6	73.7	3.04	523	14.3	45.3	1.87	263	15.7	24.8	1.02
25	29	1486	13.2	12.6	12.4	15.2	16.5	1.90	4.8	7.4	0.39	2.99	20.3	101	2.59	0.171	0.158	5.6	0.24	2167	932	155	44	B	S	0.0876	130.1	4.44	1354	13.3	120.4	4.11	823	15.4	96.6	3.30	559	16.6	70.0	2.39
30	34	1352	15.2	14.6	14.3	17.2	18.7	2.13	5.1	8.9	0.36	3.75	24.5	100	2.72	0.158	0.146	6.3	0.30	2529	932	171	51	C	S	0.1315	177.8	5.19	1290	15.0	168.6	4.92	969	16.6	150.3	4.39	768	17.6	124.5	3.63
35	39	1228	17.1	16.4	16.0	19.1	20.6	2.34	5.3	10.3	0.34	4.53	28.1	98	2.85	0.150	0.139	6.8	0.35	2832	932	182	56	C	S	0.1827	224.3	5.71	1197	16.7	215.4	5.49	1007	17.9	200.9	5.12	870	18.7	178.5	4.55
40	44	1116	18.8	18.2	17.6	20.7	22.3	2.54	5.6	11.5	0.32	5.33	31.0	97	2.99	0.145	0.134	7.2	0.39	3078	932	189	59	C	S	0.2397	267.5	6.04	1100	18.3	258.8	5.85	987	19.3	246.7	5.57	896	19.9	227.8	5.15
45	49	1018	20.5	19.8	19.0	22.1	23.7	2.73	5.8	12.5	0.31	6.13	33.4	95	3.13	0.142	0.132	7.4	0.43	3278	932	194	62	C	S	0.3015	306.9	6.23	1010	19.9	298.4	6.06	941	20.6	287.7	5.84	882	21.1	271.9	5.52
50	54	932	22.0	21.3	20.3	23.3	25.0	2.90	6.0	13.5	0.31	6.92	35.4	94	3.28	0.140	0.131	7.5	0.46	3437	932	196	64	C	S	0.3667	341.8	6.30	927	21.4	333.4	6.14	885	21.9	323.5	5.96	846	22.3	310.2	5.72
55	59	857	23.4	22.7	21.5	24.4	26.1	3.07	6.2	14.3	0.30	7.70	36.9	93	3.42	0.140	0.131	7.6	0.50	3566	932	196	66	C	S	0.4345	372.4	6.28	854	22.8	364.0	6.14	827	23.2	354.6	5.98	801	23.5	343.1	5.79
60	64	792	24.8	24.1	22.5	25.4	27.1	3.22	6.4	15.1	0.30	8.47	38.2	92	3.55	0.140	0.131	7.7	0.52	3669	932	196	67	C	S	0.5037	398.9	6.21	791	24.1	390.6	6.08	773	24.4	381.5	5.94	755	24.7	371.5	5.78
65	69	736	26.0	25.3	23.5	26.3	28.0	3.36	6.6	15.7	0.29	9.22	39.2	90	3.69	0.140	0.132	7.7	0.55	3753	932	195	68	C	S	0.5734	422.0	6.09	735	25.4	413.8	5.97	723	25.6	404.8	5.84	711	25.8	396.0	5.72
70	74	687	27.2	26.5	24.4	27.1	28.8	3.49	6.8	16.3	0.29	9.95	40.0	89	3.82	0.141	0.133	7.7	0.58	3823	932	194	68	C	S	0.6429	441.7	5.95	687	26.5	433.5	5.84	679	26.7	424.7	5.72	670	26.9	416.8	5.61
75	79	645	28.3	27.6	25.1	27.8	29.5	3.62	7.0	16.8	0.29	10.66	40.6	88	3.94	0.141	0.134	7.6	0.60	3881	932	192	69	C	S	0.7118	459.1	5.79	645	27.6	451.0	5.69	639	27.8	442.1	5.58	633	27.9	435.1	5.49
80	84	608	29.4	28.7	25.9	28.5	30.1	3.73	7.1	17.3	0.29	11.34	41.2	87	4.06	0.142	0.135	7.6	0.62	3930	932	190	69	C	S	0.7794	473.9	5.62	608	28.7	465.8	5.53	604	28.8	457.0	5.42	599	28.9	450.5	5.35
85	89	576	30.3	29.7	26.5	29.1	30.7	3.84	7.3	17.7	0.29	12.00	41.7	86	4.17	0.143	0.136	7.6	0.64	3973	932	189	69	C	S	0.8455	487.0	5.46	576	29.7	478.9	5.36	573	29.8	470.1	5.27	570	29.8	464.2	5.20
90	94	547	31.3	30.6	27.1	29.6	31.2	3.94	7.4	18.0	0.29	12.63	42.0	85	4.28	0.144	0.137	7.5	0.67	4011	932	187	69	C	S	0.9095	497.5	5.28	547	30.6	489.5	5.19	545	30.6	480.7	5.10	542	30.7	475.2	5.04
95	99	522	32.1	31.4	27.7	30.1	31.7	4.04	7.5	18.3	0.29	13.24	42.3	84	4.38	0.145	0.138	7.5	0.69	4046	932	185	69	C	S	0.9715	507.1	5.11	522	31.4	499.1	5.03	521	31.5	490.4	4.94	519	31.5	485.2	4.89
100	104	500	32.9	32.2	28.2	30.6	32.1	4.13	7.7	18.6	0.29	13.83	42.6	83	4.47	0.146	0.139	7.4	0.71	4077	932	183	69	C	S	1.0312	515.6	4.94	500	32.2	507.6	4.87	499	32.3	498.9	4.78	497	32.4	494.0	4.74
105	109	481	33.7	33.0	28.7	31.0	32.5	4.21	7.8	18.8	0.29	14.39	42.9	82	4.56	0.147	0.140	7.4	0.73	4106	932	182	69	C	S	1.0888	523.7	4.79	481	33.0	515.7	4.72	480	33.1	506.9	4.64	479	33.1	502.4	4.60
110	114	463	34.4	33.7	29.1	31.4	32.9	4.29	7.9	19.0	0.29	14.93	43.1	81	4.65	0.148	0.141	7.3	0.75	4134	932	180	69	C	S	1.1436	529.5	4.63	463	33.7	521.6	4.56	463	33.7	512.8	4.49	462	33.8	508.5	4.45
115	119	448	35.1	34.4	29.6	31.8	33.2	4.37	8.0	19.2	0.29	15.45	43.4	81	4.72	0.149	0.142	7.3	0.77	4161	932	179	69	C	S	1.1964	536.0	4.49	448	34.4	528.0	4.43	448	34.4	519.3	4.35	447	34.5	515.2	4.32
120	124	434	35.8	35.1	29.9	32.1	33.5	4.44	8.0	19.3	0.29	15.94	43.6	80	4.80	0.149	0.143	7.3	0.80	4187	932	178	69	C	S	1.2465	541.0	4.35	434	35.1	533.1	4.29	434	35.1	524.3	4.22	433	35.1	520.4	4.19
125	129	421	36.4	35.7	30.3	32.4	33.8	4.51	8.1	19.5	0.29	16.42	43.7	79	4.87	0.150	0.144	7.3	0.82	4212	932	177	69	C	S	1.2945	545.0	4.22	421	35.7	537.1	4.15	421	35.7	528.3	4.09	420	35.7	524.5	4.06
130	134	410	36.9	36.3	30.6	32.7	34.1	4.57	8.2	19.6	0.29	16.87	44.0	78	4.94	0.151	0.145	7.2	0.84	4237	932	176	69	C	S	1.3402	549.5	4.09	410	36.3	541.6	4.03	410	36.3	532.7	3.97	410	36.3	529.2	3.94
135	139	399	37.5	36.8	31.0	33.0	34.3	4.63	8.3	19.6	0.29	17.31	44.1	78	5.01	0.152	0.146	7.2	0.86	4261	932	175	69	C	S	1.3835	552.0	3.96	399	36.8	544.1	3.91	399	36.8	535.3	3.84	399	36.8	531.9	3.82
140	144	390	38.0	37.3	31.2	33.2	34.5	4.69	8.3	19.7	0.30	17.74	44.3	77	5.06	0.152	0.147	7.2	0.88	4285	932	174	69	C	S	1.4249	555.7	3.85	390	37.3	547.8	3.80	390	37.3	538.9	3.74	390	37.3	535.6	3.71
145	149	381	38.5	37.8	31.5	33.5	34.8	4.74	8.4	19.8	0.30	18.14	44.4	76	5.12	0.153	0.147	7.2	0.90	4310	932	173	69	C	S	1.4640	557.8	3.74	381	37.8	549.9	3.68	381	37.8	541.0	3.62	381	37.8	537.8	3.60
150	154	374	39.0	38.3	31.8	33.7	35.0	4.79	8.4	19.8	0.30	18.53	44.7	75	5.17	0.153	0.148	7.2	0.93	4334	932	173	69	C	S	1.5013	561.5	3.64	374	38.3	553.6	3.59	374	38.3	544.7	3.53	374	38.3	541.6	3.51
155	159	366	39.4	38.8	32.0	33.9	35.2	4.84	8.5	19.8	0.30	18.91	44.7	75	5.23	0.154	0.149	7.1	0.95	4358	932	172	69	C	S	1.5366	562.4	3.53	366	38.8	554.5	3.48	366	38.8	545.6	3.43	366	38.8	542.6	3.41
160	164	360	39.9	39.2	32.3	34.1	35.3	4.89	8.5	19.9	0.30	19.27	45.0	74	5.27	0.155	0.149	7.1	0.97	4382	932	172	69	C	S	1.5703	565.3	3.44	360	39.2	557.3	3.39	360	39.2	548.4	3.34	360	39.2	545.5	3.32
165	169	354	40.3	39.6	32.5	34.3	35.5	4.93	8.6	19.9	0.30	19.62	45.1	73	5.31	0.155	0.150	7.1	0.99	4406	932	171	69	C	S	1.6020	567.1	3.35	354	39.6	559.2	3.30	354	39.6	550.2	3.25	354	39.6	547.3	3.23
170	174	348	40.7	40.0	32.7	34.5	35.7	4.98	8.6	19.9	0.30	19.96	45.3	73	5.36	0.155	0.150	7.1	1.01	4430	932	171	69	C	S	1.6319	567.9	3.26	348	40.0	560.0	3.21	348	40.0	551.0	3.16	348	40.0	548.2	3.15
175	179	343	41.1	40.4	32.9	34.6	35.8	5.02	8.7	19.8	0.30	20.29	45.4	72	5.40	0.156	0.151	7.1	1.03	4454	932	170	70	C	S	1.6606	569.6	3.18	343	40.4	561.6	3.13	343	40.4	552.6	3.08	343	40.4	549.9	3.07
180	184	339	41.4	40.8	33.1	34.8	36.0	5.06	8.7	19.8	0.30	20.60	45.7	72	5.43	0.156	0.151	7.1	1.06	4479	932	170	70	C	S	1.6876	572.1	3.10	339	40.8	564.2	3.06	339	40.8	555.1	3.01	339	40.8	552.4	3.00

Table A129. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh	Total	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
age	age	N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 25 m Initial Density = 3000 stems/ha																																								
5	9	2924	2.8	2.6	3.0	4.1	4.3	0.80	2.2	0.8	0.72	0.50	1.8	128	1.85	0.455	0.427	1.1	0.02	576	1164	44	15	A	S	0.0010	2.9	0.31	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	14	2758	5.5	5.1	5.4	7.2	7.7	1.05	3.1	2.3	0.57	0.89	6.4	113	1.90	0.266	0.246	2.8	0.07	1061	1164	91	25	A	S	0.0068	18.8	1.32	256	8.6	3.7	0.26	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	19	2536	7.8	7.4	7.7	10.1	11.0	1.30	3.6	4.0	0.47	1.39	12.2	109	1.99	0.197	0.181	4.4	0.14	1602	1164	133	35	B	S	0.0200	50.8	2.64	1268	9.5	33.2	1.72	89	13.1	5.2	0.27	14	14.7	0.9	0.05
20	24	2290	10.0	9.5	9.9	12.7	13.9	1.54	4.0	5.7	0.41	1.97	18.1	107	2.09	0.164	0.150	5.7	0.21	2120	1164	166	45	B	S	0.0413	94.6	3.90	1732	10.8	79.2	3.26	487	13.8	38.5	1.59	192	15.3	16.7	0.69
25	29	2046	12.1	11.5	12.0	15.1	16.5	1.77	4.3	7.3	0.37	2.60	23.4	105	2.21	0.147	0.134	6.7	0.28	2573	1164	190	53	C	S	0.0707	144.6	4.94	1795	12.3	131.1	4.48	908	14.8	94.8	3.24	538	16.0	60.7	2.07
30	34	1820	14.0	13.4	13.9	17.1	18.7	1.99	4.6	8.7	0.34	3.28	27.9	103	2.34	0.137	0.125	7.5	0.34	2947	1164	206	60	C	S	0.1076	195.8	5.71	1702	13.9	183.6	5.36	1149	15.8	155.7	4.54	838	16.9	120.2	3.51
35	39	1618	15.8	15.2	15.6	18.9	20.6	2.20	4.9	10.0	0.32	3.99	31.7	101	2.49	0.131	0.121	8.0	0.39	3246	1164	216	65	C	S	0.1513	244.8	6.23	1560	15.5	233.6	5.95	1230	17.0	212.5	5.41	1007	17.9	180.9	4.61
40	44	1442	17.5	16.9	17.1	20.5	22.3	2.39	5.1	11.2	0.31	4.72	34.6	100	2.63	0.128	0.118	8.3	0.44	3479	1164	221	68	C	S	0.2010	289.8	6.55	1412	17.1	279.2	6.31	1216	18.2	262.6	5.93	1067	18.9	236.1	5.33
45	49	1292	19.1	18.4	18.5	21.9	23.7	2.57	5.4	12.3	0.30	5.46	37.0	98	2.78	0.127	0.117	8.5	0.48	3658	1164	224	71	D	S	0.2556	330.2	6.70	1276	18.6	320.0	6.49	1158	19.5	306.2	6.21	1060	20.1	284.3	5.77
50	54	1164	20.6	19.9	19.8	23.1	25.0	2.75	5.6	13.2	0.29	6.20	38.8	97	2.93	0.127	0.117	8.5	0.51	3795	1164	224	72	D	S	0.3141	365.6	6.74	1155	20.1	355.8	6.56	1083	20.7	343.7	6.33	1018	21.2	325.5	6.00
55	59	1055	22.0	21.4	20.9	24.2	26.1	2.91	5.8	14.1	0.29	6.94	40.2	95	3.08	0.127	0.118	8.6	0.54	3899	1164	222	73	D	S	0.3756	396.3	6.69	1050	21.4	386.7	6.52	1004	21.9	375.5	6.34	962	22.3	360.3	6.08
60	64	962	23.4	22.7	21.9	25.2	27.1	3.06	6.0	14.8	0.29	7.67	41.2	94	3.22	0.128	0.119	8.5	0.56	3977	1164	220	74	D	S	0.4391	422.4	6.57	959	22.7	413.0	6.43	930	23.1	402.6	6.26	901	23.5	389.6	6.06
65	69	883	24.6	24.0	22.9	26.1	28.0	3.20	6.2	15.5	0.28	8.39	42.1	93	3.37	0.129	0.120	8.5	0.59	4038	1164	217	74	D	S	0.5039	444.9	6.42	881	24.0	435.6	6.29	862	24.3	425.6	6.14	842	24.6	414.3	5.98
70	74	816	25.8	25.1	23.7	26.9	28.8	3.34	6.4	16.1	0.28	9.09	42.7	92	3.50	0.130	0.122	8.4	0.61	4084	1164	214	74	D	S	0.5690	464.3	6.25	815	25.2	455.2	6.13	802	25.4	445.4	6.00	788	25.6	435.5	5.86
75	79	758	26.9	26.3	24.5	27.6	29.5	3.46	6.6	16.6	0.28	9.78	43.2	90	3.63	0.131	0.123	8.3	0.63	4121	1164	211	74	D	S	0.6340	480.6	6.06	758	26.3	471.6	5.95	748	26.5	462.0	5.83	738	26.6	453.2	5.72
80	84	708	28.0	27.3	25.3	28.3	30.1	3.58	6.8	17.1	0.28	10.44	43.6	89	3.76	0.133	0.125	8.2	0.65	4150	1164	207	74	D	S	0.6983	494.4	5.87	708	27.3	485.6	5.76	701	27.5	476.1	5.65	694	27.6	468.2	5.56
85	89	664	29.0	28.3	25.9	28.9	30.7	3.69	6.9	17.5	0.28	11.09	43.8	88	3.88	0.134	0.127	8.1	0.66	4174	1164	204	74	D	S	0.7616	505.7	5.66	664	28.3	497.0	5.57	659	28.4	487.6	5.46	654	28.5	480.4	5.38
90	94	627	29.9	29.2	26.5	29.4	31.2	3.80	7.1	17.8	0.28	11.71	44.1	87	3.99	0.136	0.128	8.1	0.68	4194	1164	201	73	D	S	0.8234	516.3	5.48	627	29.2	507.7	5.39	624	29.3	498.4	5.29	620	29.4	491.8	5.22
95	99	594	30.8	30.1	27.1	29.9	31.7	3.89	7.2	18.1	0.28	12.31	44.3	86	4.10	0.137	0.130	8.0	0.70	4212	1164	198	73	D	S	0.8837	524.9	5.29	594	30.1	516.4	5.20	592	30.2	507.1	5.11	588	30.3	501.0	5.05
100	104	565	31.6	30.9	27.6	30.4	32.1	3.99	7.3	18.4	0.28	12.89	44.4	85	4.21	0.139	0.131	7.9	0.72	4228	1164	196	73	D	S	0.9421	532.3	5.11	565	30.9	523.8	5.02	563	31.0	514.6	4.94	561	31.1	509.0	4.88
105	109	539	32.4	31.7	28.1	30.8	32.5	4.07	7.5	18.6	0.28	13.45	44.5	84	4.31	0.140	0.133	7.8	0.73	4243	1164	193	73	D	S	0.9985	538.2	4.93	539	31.7	529.8	4.85	538	31.8	520.6	4.76	536	31.8	515.3	4.72
110	114	517	33.2	32.5	28.5	31.2	32.9	4.15	7.6	18.9	0.28	13.99	44.7	83	4.40	0.141	0.134	7.8	0.75	4258	1164	191	72	D	S	1.0528	544.3	4.76	517	32.5	536.0	4.69	516	32.5	526.8	4.61	515	32.6	521.9	4.57
115	119	496	33.9	33.2	28.9	31.5	33.2	4.23	7.7	19.0	0.29	14.51	44.7	82	4.49	0.142	0.135	7.7	0.77	4273	1164	189	72	D	S	1.1050	548.1	4.60	496	33.2	539.8	4.53	495	33.2	530.6	4.45	494	33.3	526.0	4.41
120	124	478	34.5	33.8	29.3	31.9	33.5	4.31	7.8	19.2	0.29	15.01	44.8	81	4.57	0.143	0.137	7.6	0.79	4287	1164	187	72	D	S	1.1550	552.1	4.44	478	33.8	543.9	4.38	478	33.8	534.8	4.30	477	33.9	530.4	4.27
125	129	462	35.2	34.5	29.7	32.2	33.8	4.38	7.9	19.3	0.29	15.49	44.9	81	4.65	0.145	0.138	7.6	0.81	4302	1164	185	72	D	S	1.2030	555.8	4.30	462	34.5	547.6	4.24	462	34.5	538.5	4.17	461	34.5	534.3	4.13
130	134	448	35.8	35.1	30.0	32.5	34.1	4.44	8.0	19.4	0.29	15.95	45.0	80	4.72	0.145	0.139	7.5	0.82	4317	1164	184	71	D	S	1.2489	559.5	4.17	448	35.1	551.3	4.11	448	35.1	542.2	4.04	447	35.1	538.2	4.01
135	139	435	36.3	35.7	30.3	32.8	34.3	4.50	8.0	19.5	0.29	16.40	45.1	79	4.79	0.146	0.140	7.5	0.84	4333	1164	183	71	D	S	1.2926	562.3	4.04	435	35.7	554.2	3.98	435	35.7	545.1	3.91	434	35.7	541.2	3.89
140	144	423	36.9	36.2	30.6	33.0	34.5	4.56	8.1	19.6	0.29	16.83	45.2	78	4.86	0.147	0.141	7.4	0.86	4349	1164	181	71	D	S	1.3345	564.5	3.91	423	36.2	556.4	3.86	423	36.2	547.3	3.79	423	36.2	543.6	3.77
145	149	412	37.4	36.7	30.9	33.2	34.8	4.62	8.2	19.7	0.29	17.24	45.3	77	4.93	0.148	0.142	7.4	0.88	4365	1164	180	71	D	S	1.3743	566.2	3.79	412	36.7	558.1	3.74	412	36.7	549.0	3.68	412	36.7	545.5	3.65
150	154	402	37.9	37.2	31.2	33.5	35.0	4.67	8.2	19.7	0.29	17.64	45.4	77	4.99	0.149	0.143	7.4	0.90	4382	1164	179	71	D	S	1.4122	567.7	3.68	402	37.2	559.6	3.63	402	37.2	550.5	3.57	402	37.2	547.1	3.55
155	159	393	38.4	37.7	31.4	33.7	35.2	4.72	8.3	19.7	0.29	18.02	45.5	76	5.04	0.150	0.143	7.3	0.91	4399	1164	178	71	D	S	1.4483	569.2	3.57	393	37.7	561.1	3.52	393	37.7	552.0	3.47	393	37.7	548.7	3.45
160	164	385	38.8	38.1	31.7	33.9	35.3	4.77	8.4	19.8	0.30	18.39	45.6	75	5.10	0.150	0.144	7.3	0.93	4417	1164	177	71	D	S	1.4826	570.8	3.47	385	38.1	562.7	3.43	385	38.1	553.6	3.37	385	38.1	550.4	3.35
165	169	378	39.3	38.6	31.9	34.1	35.5	4.82	8.4	19.8	0.30	18.75	45.8	75	5.14	0.151	0.145	7.3	0.95	4435	1164	176	71	D	S	1.5153	572.8	3.38	378	38.6	564.7	3.34	378	38.6	555.6	3.28	378	38.6	552.5	3.26
170	174	371	39.7	39.0	32.1	34.2	35.7	4.87	8.5	19.8	0.30	19.10	45.9	74	5.19	0.152	0.146	7.3	0.97	4454	1164	176	71	D	S	1.5464	573.7	3.29	371	39.0	565.6	3.25	371	39.0	556.5	3.19	371	39.0	553.5	3.18
175	179	364	40.1	39.4	32.3	34.4	35.8	4.91	8.5	19.8	0.30	19.44	45.9	73	5.24	0.152	0.146	7.3	0.99	4473	1164	175	71	D	S	1.5758	573.6	3.20	364	39.4	565.5	3.15	364	39.4	556.4	3.10	364	39.4	553.5	3.09
180	184	358	40.5	39.8	32.5	34.6	36.0	4.95	8.5	19.7	0.30	19.76	46.0	73	5.29	0.153	0.147	7.2	1.00	4492	1164	174	71	D	S	1.6039	574.2	3.12	358	39.8	566.1	3.07	358	39.8	556.9	3.02	358	39.8	554.1	3.01
SI = 25 m Initial Density = 4000 stems/ha																																								
5	9	3879	2.6	2.4	3.0	4.1	4.3	0.78	2.0	0.8	0.71	0.48	2.0	135	1.61	0.396	0.370	1.3	0.02	723	1363	54	19	A	S	0.0008	3.1	0.33	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	14	3620	5.1	4.7	5.3	7.1	7.7	1.01	2.8	2.3	0.55	0.82	7.3	117	1.66	0.233	0.215	3.2	0.08	1274	1363	109	30	A	S	0.0057	20.6	1.44	188	8.4	2.5	0.18	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	19	3280	7.3	6.9	7.6	10.0	11.0	1.24	3.3	4.0	0.45	1.26	13.7	113	1.75	0.174	0.159	5.1	0.16	1872	1363	157	41	B	S	0.0168	55.1	2.86	1376	9.2	32.0	1.66	51	12.9	2.9	0.15	6	14.5	0.4	0.02
20	24	2914	9.4	8.9	9.7	12.7	13.9	1.47	3.7	5.6	0.39	1.79	20.1	110	1.85	0.146	0.133	6.6	0.24	2427	1363	193	52	C	S	0.0350	102.0	4.20	2049	10.4	81.7	3.37	422	13.6	31.5	1.30	134	15.0	11.1	0.46
25	29	2560	11.3	10.8	11.7	15.0	16.5	1.69	4.0	7.2	0.35	2.36	25.8	107	1.98	0.132	0.120	7.7	0.31	2898	1363	218	61	C	S	0.0604	154.6	5.28	2168	11.7	137.5	4.70	925	14.4	89.5	3.06	484	15.7	51.1	1.75
30	34	2241	13.2	12.6	13.5	17.0	18.7	1.90	4.3	8.6	0.33	2.99	30.5	105	2.11	0.124	0.113	8.4	0.38	3275	1363	234	67	C	S	0.0928	207.9	6.07	2057	13.2	193.0	5.63	1257	15.3	155.6	4.54	849	16.5	112.3	3.28
35	39	1964	14.9	14.3	15.2	18.8	20.6	2.10	4.6	9.8	0.31	3.64	34.3	103	2.26	0.120	0.110	8.9	0.43	3566	1363	243	72	D	S	0.1316	258.5	6.58	1874	14.7	245.1	6.24	1389	16.4	217.3	5.53	1083	17.3	177.7	4.53
40	44	1728	16.6	16.0	16.7	20.4	22.3	2.29	4.8	11.0	0.30	4.32	37.3	102	2.41	0.118	0.108	9.2	0.47	3785	1363	247	75	D	S	0.1763	304.6	6.88	1682	16.2	292.2	6.60	1393	17.5	271.1	6.12	1183	18.3	237.7	5.37
45	49	1530	18.1	17.5	18.1	21.8	23.7	2.47	5.1	12.1	0.29	5.02	39.5	100	2.56	0.117	0.108	9.3	0.51	3947	1363	247	77	D	S	0.2258	345.5	7.01	1505	17.7	333.9	6.78	1331	18.7	317.0	6.43	1192	19.4	289.5	5.88
50	54	1363	19.6	19.0	19.3	23.0	25.0	2.64	5.3	13.0	0.29	5.72	41.2	98	2.71	0.118	0.108	9.3	0.54	4064	1363	245	78	D	S	0.2795	380.9	7.02	1349	19.1	369.9	6.82	1243	19.9	355.6	6.55	1151	20.4	333.0	6.14
55	59	1224	21.0	20.4	20.5	24.1	26.1	2.80	5.5	13.8	0.28	6.42	42.5	97	2.86	0.119	0.109	9.3	0.57	4149	1363	242	79	D	S	0.3363	411.6	6.94	1216	20.5	401.0	6.77	1149	21.1	388.3	6.55	1088	21.5	369.5	6.23
60	64	1107	22.4	21.7	21.5	25.1	27.1	2.95	5.7	14.6	0.28	7.12	43.5	96	3.01	0.120	0.111	9.2	0.59	4209	1363	238	79	D	S	0.3955	437.8	6.81	1103	21.8	427.5	6.65	1060	22.2	415.8	6.47	1018	22.6	400.0	6.22
65	69	1008	23.6	23.0	22.4	25.9	28.0	3.09	6.0	15.3	0.28	7.81	44.1	94	3.15	0.121	0.113	9.1	0.61	4251	1363	234	79	D	S	0.4562	459.8	6.64	1005	23.0	449.8	6.49	977	23.4	438.7	6.33	949	23.7	425.2	6.14
70	74	924	24.8	24.1	23.3	26.7	28.8	3.22	6.2	15.9	0.28	8.49	44.6	93	3.29	0.123	0.114	9.0	0.63	4280	1363	229	78	D	S	0.5176	478.3	6.44	923	24.2	468.6	6.31	903	24.5	457.9	6.17	884	24.7	446.3	6.01
75	79	853	25.9	25.2	24.1	27.5	29.5	3.35	6.3	16.4	0.28	9.15	45.0	92	3.42	0.125	0.116	8.8	0.65	4301	1363	225	78	D	S	0.5794	494.2	6.23	852	25.3	484.7	6.11	839	25.5	474.4	5.98	825	25.7	464.1	5.85
80	84	792	27.0	26.3	24.8	28.1	30.1	3.47	6.5	16.9	0.28	9.80	45.2	91	3.55	0.126	0.118	8.7	0.66	4315	1363	220	78	D	S	0.6409	507.6	6.02	792	26.3	498.2	5.91	782	26.5	488.1	5.79	772	26.7	478.9	5.68
85	89	739	28.0	27.3	25.4	28.7	30.7	3.58	6.7	17.3	0.28	10.43	45.4	90	3.68	0.128	0.120	8.6	0.68	4325	1363	216	77	D	S	0.7016	518.5	5.81	739	27.3	509.3	5.71	732	27.5	499.4	5.59	725	27.6	491.2	5.50
90	94	694	28.9	28.2	26.0	29.2	31.2	3.68	6.8	17.6	0.28	11.04	45.6	89	3.80	0.130	0.122	8.5	0.69	4332	1363	213	77	D	S	0.7614	528.4	5.61	694	28.2	519.3	5.51	689	28.4	509.5	5.40	683	28.5	502.0	5.33
95	99	654	29.8	29.1	26.6	29.7	31.7	3.78	7.0	18.0	0.28	11.63	45.6	87	3.91	0.132	0.123	8.4	0.71	4337	1363	209	76	D	S	0.8197	536.1	5.40	654	29.1	527.2	5.31	650	29.2	517.5	5.21	646	29.3	510.6	5.14
100	104	619	30.6	30.0	27.1	30.2	32.1	3.88	7.1	18.2	0.28	12.21	45.7	86	4.02	0.133	0.125	8.2	0.72	4342	1363	205	76	D	S	0.8766	542.6	5.20	619	30.0	533.8	5.12	616	30.1	524.2	5.03	613	30.1	517.8	4.97
105	109	589	31.4	30.8	27.6	30.6	32.5	3.96	7.2	18.5	0.28	12.76	45.7	85	4.12	0.135	0.127	8.2	0.74	4347	1363	202	75	D	S	0.9317	548.8	5.02	589	30.8	540.1	4.94	587	30.8	530.6	4.86	584	30.9	524.6	4.80
110	114	562	32.2	31.5	28.0	31.0	32.9	4.05	7.4	18.7	0.28	13.29	45.8	85	4.22	0.136	0.128	8.1	0.75	4352	1363	200	75	D	S	0.9851	553.6	4.84	562	31.5	545.0	4.77	561	31.5	535.6	4.69	558	31.6	530.0	4.64
115	119	538	32.9	32.2	28.5	31.4	33.2	4.13	7.5	18.9	0.28	13.81	45.8	84	4.31	0.137	0.130	8.0	0.77	4358	1363	197	74	D	S	1.0366	557.7	4.68	538	32.2	549.1	4.60	537	32.3	539.7	4.53	535	32.3	534.5	4.48
120	124	516	33.6	32.9	28.8	31.7	33.5	4.20	7.6	19.0	0.28	14.31	45.7	83	4.40	0.139	0.131	7.9	0.78	4364	1363	194	74	D	S	1.0860	560.4	4.51	516	32.9	551.9	4.44	515	32.9	542.5	4.37	514	33.0	537.7	4.33
125	129	497	34.2	33.6	29.2	32.0	33.8	4.27	7.7	19.2	0.28	14.79	45.8	82	4.49	0.140	0.133	7.8	0.80	4371	1363	192	73	D	S	1.1336	563.4	4.36	497	33.6	555.0	4.29	497	33.6	545.7	4.22	495	33.6	541.0	4.19
130	134	480	34.9	34.2	29.5	32.3	34.1	4.34	7.8	19.3	0.29	15.25	45.8	81	4.56	0.141	0.134	7.8	0.81	4378	1363	190	73	D	S	1.1794	566.1	4.22	480	34.2	557.7	4.15	480	34.2	548.4	4.08	479	34.2	544.0	4.05
135	139	465	35.4	34.8	29.9	32.6	34.3	4.40	7.9	19.4	0.29	15.70	45.9	80	4.64	0.142	0.135	7.7	0.83	4387	1363	189	73	D	S	1.2232	568.8	4.08	465	34.8	560.4	4.02	465	34.8	551.1	3.96	464	34.8	546.9	3.93
140	144	451	36.0	35.3	30.2	32.8	34.5	4.47	7.9	19.5	0.29	16.13	45.9	79	4.71	0.143	0.136	7.6	0.85	4397	1363	187	73	D	S	1.2650	570.5	3.95	451	35.3	562.2	3.90	451	35.3	552.9	3.83	450	35.4	548.9	3.80
145	149	438	36.5	35.8	30.4	33.1	34.8	4.52	8.0	19.5	0.29	16.54	45.9	79	4.78	0.145	0.137	7.6	0.86	4407	1363	185	72	D	S	1.3048	571.5	3.83	438	35.8	563.3	3.77	438	35.8	554.0	3.71	437	35.9	550.1	3.69
150	154	426	37.0	36.3	30.7	33.3	35.0	4.58	8.1	19.6	0.29	16.95	45.9	78	4.85	0.146	0.139	7.5	0.88	4418	1363	184	72	D	S	1.3430	572.1	3.71	426	36.3	563.9	3.66	426	36.3	554.6	3.60	426	36.3	551.0	3.57
155	159	416	37.5	36.8	30.9	33.5	35.2	4.63	8.1	19.6	0.29	17.33	46.0	77	4.90	0.146	0.139	7.5	0.89	4430	1363	182	72	D	S	1.3796	573.9	3.60	416	36.8	565.6	3.55	416	36.8	556.4	3.49	416	36.8	552.9	3.47
160	164	406	38.0	37.3	31.2	33.7	35.3	4.68	8.2	19.6	0.29	17.71	46.0	76	4.96	0.147	0.140	7.5	0.91	4443	1363	181	72	D	S	1.4143	574.2	3.50	406	37.3	565.9	3.44	406	37.3	556.7	3.39	406	37.3	553.3	3.37
165	169	398	38.4	37.7	31.4	33.9	35.5	4.73	8.3	19.7	0.29	18.07	46.2	76	5.01	0.148	0.141	7.4	0.93	4457	1363	180	72	D	S	1.4475	576.1	3.40	398	37.7	567.9	3.36	398	37.7	558.6	3.30	398	37.7	555.3	3.28
170	174	389	38.9	38.2	31.6	34.1	35.7	4.78	8.3	19.7	0.30	18.42	46.1	75	5.07	0.149	0.142	7.4	0.94	4471	1363	179	72	D	S	1.4789	575.3	3.30	389	38.2	567.1	3.25	389	38.2	557.9	3.20	389	38.2	554.7	3.18
175	179	382	39.3	38.6	31.8	34.2	35.8	4.82	8.4	19.7	0.30	18.76	46.3	74	5.12	0.149	0.143	7.4	0.96	4486	1363	178	72	D	S	1.5089	576.4	3.22	382	38.6	568.2	3.17	382	38.6	559.0	3.12	382	38.6	555.9	3.10
180	184	375	39.7	39.0	32.0	34.4	36.0	4.86	8.4	19.7	0.30	19.09	46.3	74	5.16	0.150	0.144	7.4	0.97	4501	1363	178	72	D	S	1.5376	576.6	3.13	375	39.0	568.4	3.08	375	39.0	559.2	3.03	375	39.0	556.1	3.02

Table A130. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume) N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	Util. std. = 8/6 N	D	V/ha	Mai	Util. std. = 13/7 N	D	V/ha	Mai	Util. std = 15/10 N	D	V/ha	Mai
SI = 25 m Initial Density = 5000 stems/ha																																								
5	9	4830	2.4	2.2	2.9	4.0	4.3	0.77	1.9	0.8	0.69	0.46	2.2	141	1.44	0.356	0.332	1.4	0.02	864	1543	63	22	A	S	0.0007	3.3	0.36	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	14	4468	4.8	4.5	5.2	7.1	7.7	0.98	2.7	2.3	0.53	0.77	8.0	121	1.50	0.211	0.193	3.7	0.09	1469	1543	125	34	B	S	0.0049	22.0	1.54	134	8.3	1.7	0.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	19	4000	6.9	6.5	7.4	10.0	11.0	1.20	3.1	3.9	0.44	1.18	15.0	115	1.58	0.158	0.144	5.7	0.18	2111	1543	178	47	B	S	0.0146	58.5	3.04	1420	8.9	30.3	1.57	29	12.8	1.6	0.08	2	14.3	0.1	0.01
20	24	3507	8.9	8.4	9.5	12.6	13.9	1.42	3.5	5.5	0.38	1.66	21.8	112	1.69	0.134	0.122	7.3	0.26	2693	1543	217	58	C	S	0.0307	107.5	4.43	2299	10.0	82.6	3.40	353	13.4	25.3	1.04	91	14.9	7.3	0.30
25	29	3043	10.8	10.3	11.5	14.9	16.5	1.63	3.8	7.0	0.34	2.19	27.7	109	1.81	0.121	0.110	8.4	0.34	3174	1543	243	67	C	S	0.0533	162.2	5.54	2491	11.3	141.5	4.83	905	14.1	82.9	2.83	420	15.5	42.3	1.45
30	34	2632	12.6	12.0	13.3	17.0	18.7	1.83	4.1	8.4	0.32	2.77	32.6	107	1.95	0.115	0.104	9.2	0.40	3549	1543	258	73	D	S	0.0824	216.9	6.33	2372	12.7	199.4	5.82	1319	15.0	152.7	4.46	829	16.1	103.3	3.01
35	39	2281	14.3	13.7	14.9	18.7	20.6	2.03	4.3	9.7	0.31	3.39	36.4	105	2.09	0.112	0.102	9.6	0.46	3831	1543	266	77	D	S	0.1177	268.4	6.83	2154	14.2	253.0	6.44	1506	15.9	218.5	5.56	1121	17.0	171.8	4.37
40	44	1988	15.9	15.3	16.4	20.3	22.3	2.21	4.6	10.8	0.29	4.03	39.4	103	2.24	0.111	0.101	9.9	0.50	4036	1543	268	80	D	S	0.1586	315.2	7.12	1923	15.6	301.3	6.81	1534	17.0	275.5	6.22	1263	17.9	235.7	5.32
45	49	1745	17.4	16.8	17.7	21.7	23.7	2.39	4.8	11.8	0.29	4.69	41.6	101	2.39	0.110	0.101	10.0	0.54	4182	1543	267	82	D	S	0.2042	356.4	7.23	1710	17.0	343.6	6.97	1475	18.1	323.5	6.57	1293	18.8	290.7	5.90
50	54	1543	18.9	18.3	19.0	22.9	25.0	2.55	5.1	12.8	0.28	5.36	43.2	100	2.55	0.111	0.102	9.9	0.57	4283	1543	263	83	D	S	0.2541	392.0	7.22	1524	18.4	380.0	7.00	1380	19.3	363.5	6.70	1259	19.9	336.7	6.20
55	59	1376	20.3	19.6	20.1	24.0	26.1	2.71	5.3	13.6	0.28	6.04	44.4	98	2.70	0.112	0.103	9.9	0.59	4352	1543	259	83	D	S	0.3072	422.7	7.13	1365	19.7	411.2	6.94	1275	20.4	396.9	6.70	1194	20.9	374.8	6.32
60	64	1237	21.6	20.9	21.1	24.9	27.1	2.86	5.5	14.4	0.28	6.71	45.2	97	2.84	0.114	0.105	9.7	0.61	4396	1543	253	83	D	S	0.3627	448.7	6.98	1231	21.0	437.7	6.81	1173	21.5	424.8	6.61	1118	22.0	406.3	6.32
65	69	1120	22.8	22.2	22.0	25.8	28.0	3.00	5.7	15.0	0.27	7.37	45.8	96	2.99	0.116	0.107	9.6	0.63	4424	1543	248	83	D	S	0.4201	470.5	6.79	1116	22.2	459.9	6.64	1078	22.6	447.9	6.47	1041	23.0	432.3	6.24
70	74	1022	24.0	23.3	22.9	26.6	28.8	3.13	5.9	15.7	0.27	8.03	46.2	94	3.13	0.118	0.109	9.4	0.65	4439	1543	242	82	D	S	0.4786	489.1	6.59	1020	23.4	478.8	6.45	994	23.7	467.4	6.29	968	24.0	453.9	6.11
75	79	938	25.1	24.4	23.6	27.3	29.5	3.26	6.1	16.2	0.27	8.67	46.4	93	3.27	0.120	0.111	9.3	0.66	4447	1543	237	81	D	S	0.5374	504.1	6.36	937	24.5	494.1	6.23	919	24.7	483.2	6.10	901	25.0	471.5	5.95
80	84	867	26.2	25.5	24.4	28.0	30.1	3.38	6.3	16.7	0.27	9.30	46.6	92	3.40	0.121	0.113	9.1	0.67	4449	1543	231	81	D	S	0.5964	517.1	6.14	866	25.5	507.3	6.02	854	25.7	496.7	5.89	840	25.9	486.2	5.77
85	89	806	27.2	26.5	25.0	28.5	30.7	3.49	6.5	17.1	0.27	9.92	46.7	91	3.52	0.123	0.115	9.0	0.69	4447	1543	226	80	D	S	0.6550	527.9	5.91	806	26.5	518.2	5.80	797	26.7	507.9	5.69	787	26.8	498.6	5.59
90	94	754	28.1	27.4	25.6	29.1	31.2	3.59	6.6	17.5	0.27	10.51	46.8	90	3.64	0.125	0.117	8.8	0.70	4444	1543	222	79	D	S	0.7126	537.3	5.70	754	27.4	527.9	5.60	747	27.6	517.7	5.49	740	27.7	509.3	5.40
95	99	708	29.0	28.3	26.2	29.6	31.7	3.69	6.8	17.8	0.27	11.10	46.7	89	3.76	0.127	0.119	8.7	0.71	4440	1543	218	79	D	S	0.7694	544.7	5.49	708	28.3	535.4	5.39	703	28.4	525.4	5.29	697	28.6	517.7	5.22
100	104	668	29.8	29.2	26.7	30.0	32.1	3.79	6.9	18.1	0.27	11.66	46.7	88	3.87	0.129	0.121	8.6	0.73	4436	1543	214	78	D	S	0.8247	550.9	5.28	668	29.2	541.7	5.20	664	29.3	531.8	5.10	660	29.4	524.8	5.03
105	109	633	30.6	30.0	27.2	30.5	32.5	3.88	7.1	18.3	0.28	12.20	46.7	87	3.97	0.131	0.122	8.4	0.74	4432	1543	210	77	D	S	0.8785	556.1	5.09	633	30.0	547.1	5.01	630	30.1	537.3	4.92	627	30.1	530.8	4.86
110	114	602	31.4	30.7	27.6	30.8	32.9	3.96	7.2	18.6	0.28	12.73	46.6	86	4.08	0.132	0.124	8.3	0.75	4429	1543	207	77	D	S	0.9309	560.4	4.90	602	30.7	551.5	4.83	600	30.8	541.7	4.74	597	30.9	535.7	4.69
115	119	574	32.1	31.4	28.0	31.2	33.2	4.04	7.3	18.7	0.28	13.24	46.5	85	4.17	0.134	0.126	8.2	0.77	4427	1543	203	76	D	S	0.9814	563.3	4.72	574	31.4	554.5	4.65	573	31.5	544.9	4.57	570	31.6	539.2	4.52
120	124	550	32.8	32.1	28.4	31.5	33.5	4.12	7.4	18.9	0.28	13.74	46.5	84	4.26	0.135	0.127	8.1	0.78	4427	1543	201	76	D	S	1.0302	566.6	4.56	550	32.1	557.9	4.49	549	32.2	548.3	4.41	547	32.2	543.0	4.37
125	129	528	33.5	32.8	28.8	31.8	33.8	4.19	7.5	19.1	0.28	14.22	46.4	83	4.35	0.137	0.129	8.0	0.79	4427	1543	198	75	D	S	1.0773	568.8	4.40	528	32.8	560.2	4.33	527	32.8	550.6	4.26	526	32.9	545.7	4.22
130	134	509	34.1	33.4	29.1	32.1	34.1	4.26	7.6	19.2	0.28	14.68	46.5	82	4.43	0.138	0.130	8.0	0.81	4429	1543	196	75	D	S	1.1226	571.4	4.26	509	33.4	562.8	4.19	508	33.4	553.3	4.12	507	33.5	548.6	4.09
135	139	491	34.7	34.0	29.4	32.4	34.3	4.32	7.7	19.3	0.28	15.12	46.4	81	4.51	0.139	0.132	7.9	0.82	4432	1543	193	74	D	S	1.1660	572.5	4.11	491	34.0	564.0	4.05	491	34.0	554.6	3.98	490	34.0	550.1	3.95
140	144	475	35.3	34.6	29.7	32.7	34.5	4.38	7.8	19.4	0.29	15.55	46.4	80	4.59	0.140	0.133	7.8	0.83	4436	1543	191	74	D	S	1.2076	573.6	3.98	475	34.6	565.2	3.92	475	34.6	555.8	3.85	474	34.6	551.5	3.82
145	149	461	35.8	35.1	30.0	32.9	34.8	4.44	7.9	19.4	0.29	15.97	46.4	79	4.66	0.142	0.134	7.8	0.85	4441	1543	189	74	D	S	1.2477	575.2	3.85	461	35.1	566.7	3.80	461	35.1	557.4	3.73	460	35.2	553.2	3.71
150	154	448	36.3	35.6	30.3	33.1	35.0	4.50	8.0	19.5	0.29	16.37	46.4	79	4.72	0.143	0.135	7.7	0.86	4448	1543	188	73	D	S	1.2859	576.1	3.73	448	35.6	567.7	3.68	448	35.6	558.3	3.62	447	35.7	554.3	3.59
155	159	436	36.8	36.1	30.5	33.3	35.2	4.55	8.0	19.5	0.29	16.76	46.4	78	4.79	0.144	0.136	7.6	0.87	4455	1543	186	73	D	S	1.3222	576.5	3.62	436	36.1	568.2	3.57	436	36.1	558.9	3.51	435	36.2	555.0	3.48
160	164	425	37.3	36.6	30.8	33.5	35.3	4.61	8.1	19.6	0.29	17.14	46.4	77	4.85	0.145	0.137	7.6	0.89	4464	1543	185	73	D	S	1.3572	576.8	3.51	425	36.6	568.5	3.46	425	36.6	559.2	3.40	425	36.6	555.6	3.38
165	169	415	37.7	37.0	31.0	33.7	35.5	4.65	8.1	19.6	0.29	17.50	46.4	76	4.91	0.146	0.138	7.6	0.90	4473	1543	183	73	D	S	1.3906	577.1	3.41	415	37.0	568.8	3.36	415	37.0	559.5	3.31	415	37.0	556.0	3.28
170	174	406	38.2	37.5	31.2	33.9	35.7	4.70	8.2	19.6	0.29	17.86	46.5	76	4.96	0.146	0.139	7.5	0.92	4484	1543	182	73	D	S	1.4224	577.5	3.31	406	37.5	569.2	3.27	406	37.5	559.9	3.21	406	37.5	556.5	3.19
175	179	398	38.6	37.9	31.4	34.1	35.8	4.75	8.3	19.6	0.29	18.20	46.6	75	5.01	0.147	0.140	7.5	0.93	4495	1543	181	72	D	S	1.4528	578.2	3.23	398	37.9	569.9	3.18	398	37.9	560.6	3.13	398	37.9	557.4	3.11
180	184	390	39.0	38.3	31.6	34.2	36.0	4.79	8.3	19.6	0.30	18.53	46.6	74	5.06	0.148	0.141	7.5	0.94	4508	1543	180	72	D	S	1.4818	577.9	3.14	390	38.3	569.6	3.09	390	38.3	560.3	3.04	390	38.3	557.1	3.02
SI = 25 m Initial Density = 6000 stems/ha																																								
5	9	5776	2.3	2.1	2.9	4.0	4.3	0.76	1.9	0.8	0.68	0.45	2.4	146	1.32	0.326	0.304	1.6	0.03	1000	1709	71	26	A	S	0.0006	3.5	0.38	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	14	5303	4.5	4.3	5.1	7.1	7.7	0.95	2.6	2.3	0.52	0.74	8.6	124	1.37	0.194	0.178	4.0	0.10	1652	1709	140	39	B	S	0.0044	23.1	1.62	93	8.2	1.2	0.08	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	19	4701	6.6	6.2	7.3	10.0	11.0	1.16	3.0	3.9	0.43	1.11	16.0	118	1.46	0.146	0.133	6.2	0.19	2329	1709	197	52	C	S	0.0130	61.2	3.18	1421	8.8	28.3	1.47	17	12.7	0.9	0.05	0	0.0	0.0	0.00
20	24	4078	8.5	8.1	9.4	12.6	13.9	1.37	3.3	5.5	0.37	1.56	23.2	114	1.57	0.125	0.113	7.9	0.28	2930	1709	238	63	C	S	0.0275	112.0	4.61	2498	9.8	82.5	3.40	289	13.2	20.2	0.83	61	14.8	4.8	0.20
25	29	3501	10.3	9.8	11.3	14.9	16.5	1.58	3.6	6.9	0.34	2.06	29.4	111	1.69	0.114	0.103	9.1	0.36	3415	1709	265	72	D	S	0.0480	168.0	5.74	2772	11.0	143.8	4.91	863	13.9	75.8	2.59	358	15.3	34.7	1.19
30	34	2999	12.1	11.5	13.1	16.9	18.7	1.78	3.9	8.3	0.32	2.61	34.3	108	1.83	0.108	0.098	9.9	0.43	3786	1709	279	78	D	S	0.0746	223.8	6.53	2655	12.3	203.6	5.94	1348	14.7	148.0	4.32	790	15.9	94.1	2.75
35	39	2578	13.7	13.2	14.7	18.7	20.6	1.97	4.1	9.5	0.30	3.19	38.2	106	1.97	0.106	0.096	10.3	0.48	4057	1709	285	82	D	S	0.1071	276.1	7.03	2409	13.7	258.7	6.59	1592	15.6	217.5	5.54	1134	16.7	164.6	4.19
40	44	2230	15.3	14.7	16.1	20.2	22.3	2.15	4.4	10.6	0.29	3.81	41.1	104	2.12	0.105	0.095	10.5	0.53	4250	1709	286	85	D	S	0.1449	323.2	7.30	2144	15.1	307.8	6.95	1648	16.6	277.4	6.27	1318	17.5	231.6	5.23
45	49	1944	16.8	16.2	17.5	21.6	23.7	2.32	4.6	11.6	0.28	4.44	43.3	103	2.27	0.105	0.096	10.5	0.56	4381	1709	284	86	D	S	0.1876	364.6	7.40	1898	16.5	350.6	7.12	1598	17.7	327.3	6.64	1372	18.4	289.5	5.88
50	54	1709	18.3	17.7	18.7	22.8	25.0	2.48	4.9	12.6	0.28	5.08	44.8	101	2.42	0.106	0.097	10.5	0.59	4469	1709	279	87	D	S	0.2342	400.3	7.38	1684	17.8	387.3	7.14	1499	18.8	368.5	6.79	1348	19.4	337.7	6.22
55	59	1516	19.6	19.0	19.8	23.9	26.1	2.64	5.1	13.4	0.27	5.73	45.9	99	2.57	0.108	0.098	10.4	0.61	4523	1709	273	87	D	S	0.2842	430.9	7.27	1501	19.1	418.6	7.06	1386	19.9	402.8	6.80	1285	20.4	377.5	6.37
60	64	1356	20.9	20.3	20.8	24.8	27.1	2.79	5.3	14.2	0.27	6.37	46.7	98	2.72	0.109	0.100	10.2	0.63	4555	1709	267	86	D	S	0.3368	456.7	7.11	1347	20.4	445.0	6.92	1273	21.0	431.0	6.71	1205	21.4	410.0	6.38
65	69	1223	22.2	21.5	21.7	25.7	28.0	2.93	5.6	14.8	0.27	7.02	47.2	97	2.86	0.111	0.102	10.0	0.65	4570	1709	260	86	D	S	0.3913	478.6	6.91	1218	21.6	467.4	6.75	1169	22.1	454.5	6.56	1122	22.4	436.8	6.31
70	74	1111	23.3	22.7	22.5	26.5	28.8	3.06	5.8	15.5	0.27	7.65	47.5	95	3.00	0.113	0.104	9.8	0.66	4574	1709	253	85	D	S	0.4471	496.7	6.69	1108	22.7	485.9	6.54	1075	23.1	473.8	6.38	1042	23.4	458.7	6.18
75	79	1017	24.4	23.8	23.3	27.2	29.5	3.18	6.0	16.0	0.27	8.28	47.7	94	3.14	0.115	0.106	9.6	0.67	4571	1709	247	84	D	S	0.5035	512.1	6.46	1015	23.8	501.6	6.33	993	24.1	490.2	6.18	969	24.4	477.0	6.02
80	84	936	25.5	24.8	24.0	27.8	30.1	3.30	6.1	16.5	0.27	8.89	47.7	93	3.27	0.117	0.109	9.5	0.69	4562	1709	241	83	D	S	0.5603	524.4	6.22	935	24.8	514.1	6.10	919	25.1	503.1	5.97	902	25.3	491.5	5.83
85	89	868	26.5	25.8	24.6	28.4	30.7	3.41	6.3	16.9	0.27	9.49	47.8	92	3.39	0.119	0.111	9.3	0.70	4552	1709	235	82	D	S	0.6167	535.3	6.00	867	25.8	525.3	5.88	856	26.0	514.5	5.76	844	26.2	504.3	5.65
90	94	808	27.4	26.7	25.2	29.0	31.2	3.52	6.5	17.3	0.27	10.08	47.7	91	3.52	0.122	0.113	9.1	0.71	4540	1709	230	81	D	S	0.6725	543.4	5.76	808	26.7	533.7	5.66	799	26.9	523.1	5.55	790	27.1	513.9	5.45
95	99	757	28.3	27.6	25.8	29.4	31.7	3.62	6.6	17.6	0.27	10.65	47.6	90	3.63	0.123	0.115	9.0	0.72	4527	1709	225	81	D	S	0.7276	550.8	5.55	757	27.6	541.2	5.45	751	27.8	530.9	5.35	744	27.9	522.5	5.26
100	104	712	29.2	28.5	26.3	29.9	32.1	3.71	6.8	17.9	0.27	11.20	47.5	89	3.75	0.125	0.117	8.8	0.73	4516	1709	221	80	D	S	0.7815	556.4	5.34	712	28.5	547.0	5.25	707	28.6	536.8	5.15	702	28.7	529.2	5.08
105	109	673	30.0	29.3	26.8	30.3	32.5	3.80	6.9	18.2	0.27	11.74	47.4	87	3.85	0.127	0.119	8.7	0.74	4505	1709	216	79	D	S	0.8342	561.4	5.14	673	29.3	552.1	5.05	670	29.4	542.1	4.96	665	29.5	535.0	4.90
110	114	639	30.7	30.0	27.2	30.7	32.9	3.89	7.0	18.4	0.27	12.26	47.4	86	3.96	0.129	0.120	8.5	0.75	4495	1709	213	78	D	S	0.8854	565.8	4.95	639	30.0	556.6	4.87	636	30.1	546.7	4.78	633	30.2	540.1	4.73
115	119	608	31.5	30.8	27.7	31.1	33.2	3.97	7.2	18.6	0.28	12.77	47.2	86	4.06	0.131	0.122	8.4	0.76	4487	1709	209	78	D	S	0.9350	568.5	4.77	608	30.8	559.5	4.69	606	30.8	549.7	4.61	603	30.9	543.5	4.56
120	124	581	32.1	31.5	28.0	31.4	33.5	4.04	7.3	18.8	0.28	13.26	47.1	85	4.15	0.132	0.124	8.3	0.78	4480	1709	206	77	D	S	0.9831	571.2	4.60	581	31.5	562.3	4.52	580	31.5	552.6	4.45	577	31.6	546.8	4.40
125	129	557	32.8	32.1	28.4	31.7	33.8	4.12	7.4	18.9	0.28	13.73	47.1	84	4.24	0.134	0.125	8.2	0.79	4475	1709	203	76	D	S	1.0296	573.5	4.44	557	32.1	564.7	4.37	556	32.2	555.0	4.29	554	32.2	549.6	4.25
130	134	535	33.4	32.7	28.7	32.0	34.1	4.18	7.5	19.1	0.28	14.19	47.0	83	4.32	0.135	0.127	8.1	0.80	4471	1709	200	76	D	S	1.0744	574.8	4.28	535	32.7	566.0	4.22	534	32.8	556.4	4.14	533	32.8	551.4	4.11
135	139	516	34.0	33.3	29.1	32.3	34.3	4.25	7.6	19.2	0.28	14.63	46.9	82	4.40	0.136	0.128	8.0	0.81	4469	1709	198	76	D	S	1.1174	576.6	4.14	516	33.3	567.9	4.08	515	33.4	558.3	4.01	514	33.4	553.5	3.97
140	144	498	34.6	33.9	29.4	32.5	34.5	4.31	7.7	19.3	0.28	15.06	46.8	81	4.48	0.138	0.130	8.0	0.82	4469	1709	195	75	D	S	1.1588	577.1	4.00	498	33.9	568.5	3.94	498	33.9	559.0	3.87	496	34.0	554.4	3.84
145	149	482	35.2	34.5	29.6	32.8	34.8	4.37	7.8	19.3	0.28	15.48	46.8	80	4.55	0.139	0.131	7.9	0.84	4470	1709	193	75	D	S	1.1985	577.7	3.87	482	34.5	569.1	3.81	482	34.5	559.7	3.75	481	34.5	555.3	3.72
150	154	468	35.7	35.0	29.9	33.0	35.0	4.43	7.8	19.4	0.29	15.88	46.8	79	4.62	0.140	0.132	7.8	0.85	4473	1709	191	74	D	S	1.2368	578.8	3.75	468	35.0	570.3	3.70	468	35.0	560.8	3.64	467	35.0	556.6	3.61
155	159	455	36.2	35.5	30.2	33.2	35.2	4.49	7.9	19.4	0.29	16.27	46.8	79	4.69	0.141	0.133	7.8	0.86	4476	1709	190	74	D	S	1.2732	579.3	3.64	455	35.5	570.8	3.58	455	35.5	561.4	3.52	454	35.5	557.4	3.50
160	164	443	36.7	36.0	30.4	33.4	35.3	4.54	8.0	19.5	0.29	16.65	46.8	78	4.75	0.142	0.134	7.7	0.87	4481	1709	188	74	D	S	1.3081	579.5	3.53	443	36.0	571.1	3.48	443	36.0	561.7	3.42	442	36.0	557.8	3.40
165	169	432	37.1	36.4	30.6	33.6	35.5	4.59	8.0	19.5	0.29	17.01	46.8	77	4.81	0.143	0.135	7.7	0.89	4488	1709	187	74	D	S	1.3417	579.6	3.42	432	36.4	571.2	3.37	432	36.4	561.8	3.32	432	36.4	558.1	3.30
170	174	422	37.6	36.9	30.8	33.8	35.7	4.64	8.1	19.5	0.29	17.37	46.8	76	4.87	0.144	0.136	7.6	0.90	4495	1709	185	73	D	S	1.3735	579.6	3.33	422	36.9	571.3	3.28	422	36.9	561.9	3.22	422	36.9	558.3	3.20
175	179	412	38.0	37.3	31.0	33.9	35.8	4.68	8.2	19.5	0.29	17.71	46.7	76	4.93	0.145	0.138	7.6	0.91	4503	1709	184	73	D	S	1.4039	578.4	3.23	412	37.3	570.1	3.18	412	37.3	560.8	3.13	412	37.3	557.3	3.11
180	184	404	38.4	37.7	31.2	34.1	36.0	4.73	8.2	19.5	0.29	18.05	46.8	75	4.98	0.146	0.138	7.6	0.92	4513	1709	183	73	D	S	1.4332	579.0	3.14	404	37.7	570.7	3.10	404	37.7	561.3	3.05	404	37.7	558.0	3.03

Table A131. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 25 m Initial Density = 7000 stems/ha																																								
5	9	6719	2.2	2.0	2.9	4.0	4.3	0.75	1.8	0.9	0.67	0.44	2.5	150	1.22	0.303	0.281	1.7	0.03	1133	1865	79	30	A	S	0.0006	3.7	0.40	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	14	6128	4.4	4.1	5.0	7.1	7.7	0.94	2.5	2.3	0.51	0.71	9.1	126	1.28	0.181	0.165	4.4	0.11	1825	1865	154	43	B	S	0.0039	24.1	1.69	65	8.2	0.8	0.06	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	19	5386	6.3	6.0	7.2	10.0	11.0	1.14	2.9	3.9	0.42	1.06	16.9	120	1.36	0.137	0.124	6.7	0.20	2531	1865	215	57	C	S	0.0118	63.5	3.30	1392	8.7	26.2	1.36	9	12.7	0.5	0.03	0	0.0	0.0	0.00
20	24	4629	8.2	7.8	9.2	12.5	13.9	1.34	3.2	5.4	0.37	1.48	24.4	115	1.47	0.117	0.106	8.5	0.30	3144	1865	258	68	C	S	0.0250	115.6	4.76	2654	9.6	81.7	3.37	234	13.1	16.0	0.66	41	14.7	3.1	0.13
25	29	3940	10.0	9.5	11.1	14.8	16.5	1.54	3.5	6.8	0.33	1.95	30.8	112	1.59	0.107	0.097	9.7	0.38	3632	1865	284	77	D	S	0.0438	172.7	5.90	3019	10.7	145.1	4.96	809	13.7	68.7	2.35	302	15.2	28.5	0.97
30	34	3349	11.7	11.2	12.9	16.8	18.7	1.73	3.7	8.1	0.31	2.48	35.8	110	1.73	0.103	0.093	10.5	0.45	3996	1865	298	83	D	S	0.0684	229.2	6.69	2913	12.0	206.6	6.03	1353	14.5	142.4	4.16	743	15.7	85.2	2.49
35	39	2859	13.3	12.8	14.4	18.6	20.6	1.92	4.0	9.3	0.30	3.03	39.7	107	1.87	0.101	0.091	10.9	0.50	4257	1865	303	87	D	S	0.0986	282.0	7.18	2645	13.3	262.9	6.69	1654	15.3	214.9	5.47	1128	16.4	156.6	3.99
40	44	2458	14.9	14.3	15.9	20.1	22.3	2.09	4.3	10.5	0.29	3.62	42.6	105	2.02	0.100	0.091	11.1	0.55	4436	1865	303	89	D	S	0.1340	329.4	7.44	2348	14.7	312.6	7.06	1742	16.3	277.5	6.27	1353	17.2	226.3	5.11
45	49	2131	16.3	15.8	17.2	21.5	23.7	2.26	4.5	11.5	0.28	4.23	44.7	103	2.17	0.101	0.091	11.1	0.58	4555	1865	299	90	D	S	0.1740	370.9	7.53	2072	16.0	355.8	7.22	1703	17.3	329.3	6.68	1434	18.1	286.8	5.82
50	54	1865	17.8	17.2	18.4	22.7	25.0	2.43	4.7	12.4	0.27	4.84	46.2	102	2.32	0.102	0.093	11.0	0.61	4630	1865	293	90	D	S	0.2181	406.7	7.49	1833	17.3	392.8	7.24	1605	18.4	371.9	6.85	1423	19.1	337.2	6.21
55	59	1647	19.1	18.5	19.5	23.8	26.1	2.58	5.0	13.2	0.27	5.47	47.2	100	2.46	0.104	0.094	10.8	0.63	4672	1865	286	90	D	S	0.2655	437.2	7.38	1628	18.6	424.2	7.16	1486	19.4	406.8	6.86	1363	20.0	378.4	6.38
60	64	1468	20.4	19.8	20.5	24.7	27.1	2.73	5.2	14.0	0.27	6.10	47.9	99	2.61	0.106	0.096	10.6	0.64	4692	1865	278	89	D	S	0.3155	463.1	7.21	1457	19.9	450.8	7.01	1365	20.5	435.6	6.78	1282	21.0	412.1	6.41
65	69	1319	21.6	21.0	21.4	25.6	28.0	2.86	5.4	14.7	0.27	6.72	48.3	98	2.75	0.108	0.098	10.4	0.66	4697	1865	271	89	D	S	0.3675	484.7	7.00	1312	21.0	472.9	6.83	1252	21.6	459.2	6.63	1195	22.0	439.5	6.34
70	74	1195	22.8	22.1	22.2	26.4	28.8	2.99	5.6	15.3	0.27	7.34	48.6	96	2.89	0.110	0.101	10.2	0.67	4691	1865	263	88	D	S	0.4209	503.0	6.77	1191	22.2	491.7	6.62	1150	22.6	478.9	6.45	1111	22.9	462.2	6.22
75	79	1090	23.8	23.2	23.0	27.1	29.5	3.12	5.8	15.8	0.27	7.95	48.7	95	3.03	0.112	0.103	10.0	0.68	4678	1865	256	87	D	S	0.4751	517.9	6.53	1087	23.2	507.0	6.40	1060	23.6	495.0	6.24	1031	23.9	480.5	6.06
80	84	1001	24.9	24.2	23.7	27.7	30.1	3.24	6.0	16.3	0.27	8.55	48.7	94	3.16	0.114	0.105	9.8	0.70	4661	1865	250	86	D	S	0.5298	530.3	6.29	999	24.3	519.7	6.17	980	24.5	508.2	6.03	959	24.8	495.5	5.88
85	89	925	25.9	25.2	24.3	28.3	30.7	3.35	6.2	16.7	0.27	9.13	48.7	93	3.29	0.116	0.107	9.6	0.71	4643	1865	243	84	D	S	0.5843	540.5	6.05	924	25.2	530.2	5.94	910	25.5	519.1	5.81	895	25.7	507.8	5.69
90	94	859	26.8	26.2	24.9	28.8	31.2	3.45	6.3	17.1	0.27	9.71	48.5	91	3.41	0.118	0.109	9.4	0.71	4623	1865	237	83	D	S	0.6385	548.5	5.82	858	26.2	538.4	5.71	848	26.4	527.6	5.60	837	26.5	517.5	5.49
95	99	803	27.7	27.0	25.5	29.3	31.7	3.55	6.5	17.5	0.27	10.27	48.4	90	3.53	0.120	0.111	9.2	0.72	4604	1865	232	82	D	S	0.6920	555.7	5.60	803	27.0	545.9	5.50	795	27.2	535.2	5.39	786	27.4	526.1	5.30
100	104	754	28.6	27.9	26.0	29.8	32.1	3.65	6.6	17.8	0.27	10.81	48.3	89	3.64	0.122	0.113	9.0	0.73	4585	1865	227	82	D	S	0.7446	561.4	5.38	754	27.9	551.8	5.29	748	28.0	541.3	5.19	741	28.2	533.0	5.11
105	109	711	29.4	28.7	26.5	30.2	32.5	3.73	6.8	18.0	0.27	11.34	48.1	88	3.75	0.124	0.115	8.9	0.74	4568	1865	222	81	D	S	0.7961	566.0	5.18	711	28.7	556.5	5.09	707	28.8	546.3	5.00	701	28.9	538.6	4.93
110	114	673	30.1	29.4	26.9	30.6	32.9	3.82	6.9	18.3	0.27	11.86	48.0	87	3.85	0.126	0.117	8.7	0.75	4552	1865	218	80	D	S	0.8462	569.5	4.98	673	29.4	560.2	4.90	670	29.5	550.1	4.81	666	29.6	543.1	4.75
115	119	639	30.9	30.2	27.3	30.9	33.2	3.90	7.0	18.5	0.27	12.35	47.8	86	3.96	0.128	0.119	8.6	0.76	4539	1865	214	79	D	S	0.8950	571.9	4.80	639	30.2	562.7	4.72	636	30.3	552.7	4.63	633	30.3	546.2	4.58
120	124	610	31.6	30.9	27.7	31.3	33.5	3.98	7.2	18.7	0.28	12.84	47.7	85	4.05	0.129	0.121	8.5	0.77	4527	1865	211	78	D	S	0.9423	574.8	4.63	610	30.9	565.7	4.55	608	30.9	555.8	4.47	605	31.0	549.7	4.42
125	129	583	32.2	31.5	28.1	31.6	33.8	4.05	7.3	18.8	0.28	13.31	47.5	84	4.14	0.131	0.123	8.4	0.78	4517	1865	207	78	D	S	0.9882	576.1	4.46	583	31.5	567.1	4.39	582	31.6	557.3	4.31	579	31.7	551.5	4.27
130	134	560	32.8	32.2	28.4	31.9	34.1	4.12	7.4	18.9	0.28	13.76	47.5	84	4.23	0.133	0.124	8.3	0.79	4509	1865	204	77	D	S	1.0323	578.1	4.31	560	32.2	569.2	4.24	559	32.2	559.5	4.17	557	32.3	554.1	4.13
135	139	538	33.5	32.8	28.7	32.1	34.3	4.19	7.5	19.1	0.28	14.20	47.3	83	4.31	0.134	0.126	8.2	0.80	4503	1865	201	76	D	S	1.0749	578.3	4.15	538	32.8	569.5	4.09	537	32.8	559.8	4.02	536	32.8	554.8	3.98
140	144	519	34.0	33.3	29.0	32.4	34.5	4.25	7.6	19.1	0.28	14.63	47.2	82	4.39	0.136	0.127	8.1	0.82	4498	1865	199	76	D	S	1.1160	579.2	4.01	519	33.3	570.5	3.95	518	33.4	560.8	3.89	517	33.4	556.0	3.85
145	149	502	34.6	33.9	29.3	32.6	34.8	4.31	7.7	19.2	0.28	15.05	47.2	81	4.46	0.137	0.128	8.0	0.83	4495	1865	197	76	D	S	1.1556	580.1	3.89	502	33.9	571.4	3.83	502	33.9	561.9	3.76	500	34.0	557.2	3.73
150	154	486	35.1	34.4	29.6	32.9	35.0	4.37	7.7	19.3	0.28	15.45	47.1	80	4.54	0.138	0.130	7.9	0.84	4494	1865	195	75	D	S	1.1934	580.0	3.76	486	34.4	571.4	3.70	486	34.4	561.9	3.64	485	34.5	557.5	3.61
155	159	472	35.6	34.9	29.8	33.1	35.2	4.42	7.8	19.3	0.29	15.84	47.0	79	4.60	0.139	0.131	7.9	0.85	4495	1865	193	75	D	S	1.2299	580.5	3.64	472	34.9	571.9	3.59	472	34.9	562.4	3.53	471	35.0	558.2	3.50
160	164	459	36.1	35.4	30.1	33.3	35.3	4.48	7.9	19.4	0.29	16.21	47.0	79	4.67	0.140	0.132	7.8	0.86	4496	1865	191	74	D	S	1.2647	580.5	3.53	459	35.4	572.0	3.48	459	35.4	562.5	3.42	458	35.5	558.5	3.40
165	169	447	36.6	35.9	30.3	33.5	35.5	4.53	7.9	19.4	0.29	16.58	47.0	78	4.73	0.141	0.133	7.8	0.87	4500	1865	189	74	D	S	1.2982	580.3	3.43	447	35.9	571.8	3.38	447	35.9	562.4	3.32	446	35.9	558.4	3.30
170	174	436	37.0	36.3	30.5	33.6	35.7	4.58	8.0	19.4	0.29	16.94	46.9	77	4.79	0.142	0.134	7.7	0.88	4504	1865	188	74	D	S	1.3303	580.0	3.33	436	36.3	571.5	3.28	436	36.3	562.1	3.23	435	36.4	558.3	3.20
175	179	426	37.5	36.8	30.7	33.8	35.8	4.62	8.1	19.4	0.29	17.28	46.9	76	4.85	0.143	0.135	7.7	0.89	4510	1865	186	74	D	S	1.3608	579.7	3.23	426	36.8	571.5	3.19	426	36.8	561.9	3.13	426	36.8	558.3	3.11
180	184	417	37.9	37.2	30.9	34.0	36.0	4.67	8.1	19.4	0.29	17.62	47.0	76	4.90	0.144	0.136	7.6	0.91	4516	1865	185	73	D	S	1.3902	579.7	3.15	417	37.2	571.3	3.10	417	37.2	561.9	3.05	417	37.2	558.4	3.03
SI = 25 m Initial Density = 7500 stems/ha																																								
5	9	7189	2.1	2.0	2.8	4.0	4.3	0.75	1.8	0.9	0.66	0.44	2.6	152	1.18	0.293	0.272	1.8	0.03	1198	1940	82	32	B	S	0.0005	3.7	0.40	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	14	6537	4.3	4.0	5.0	7.1	7.7	0.93	2.4	2.3	0.51	0.69	9.4	127	1.24	0.175	0.160	4.5	0.11	1909	1940	160	45	B	S	0.0037	24.5	1.72	53	8.2	0.6	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	19	5723	6.2	5.9	7.1	9.9	11.0	1.13	2.8	3.8	0.42	1.04	17.4	120	1.32	0.133	0.120	7.0	0.21	2626	1940	223	59	C	S	0.0113	64.5	3.35	1369	8.6	25.1	1.30	7	12.6	0.4	0.02	0	0.0	0.0	0.00
20	24	4899	8.1	7.6	9.2	12.5	13.9	1.32	3.1	5.4	0.36	1.44	25.0	116	1.43	0.114	0.103	8.8	0.31	3245	1940	267	71	D	S	0.0239	117.2	4.83	2719	9.5	81.1	3.34	210	13.1	14.2	0.59	34	14.7	2.6	0.11
25	29	4154	9.8	9.3	11.0	14.8	16.5	1.52	3.4	6.8	0.33	1.91	31.4	113	1.55	0.105	0.094	10.0	0.39	3732	1940	293	79	D	S	0.0421	174.7	5.97	3132	10.6	145.5	4.97	781	13.7	65.4	2.23	276	15.1	25.7	0.88
30	34	3519	11.5	11.0	12.8	16.8	18.7	1.71	3.7	8.1	0.31	2.42	36.5	110	1.69	0.100	0.090	10.8	0.46	4093	1940	307	85	D	S	0.0658	231.6	6.76	3034	11.8	207.8	6.06	1350	14.4	139.4	4.07	717	15.7	80.9	2.36
35	39	2994	13.1	12.6	14.3	18.6	20.6	1.89	3.9	9.3	0.29	2.97	40.4	108	1.83	0.098	0.089	11.2	0.51	4348	1940	311	89	D	S	0.0950	284.5	7.24	2756	13.2	264.4	6.73	1677	15.2	213.1	5.43	1120	16.4	152.5	3.88
40	44	2568	14.6	14.1	15.8	20.1	22.3	2.07	4.2	10.4	0.28	3.54	43.3	106	1.97	0.098	0.089	11.3	0.55	4522	1940	310	91	D	S	0.1293	332.1	7.50	2446	14.5	314.6	7.11	1782	16.2	277.1	6.26	1365	17.1	223.3	5.04
45	49	2221	16.1	15.5	17.1	21.5	23.7	2.24	4.4	11.4	0.28	4.13	45.3	104	2.12	0.099	0.089	11.3	0.59	4635	1940	306	92	D	S	0.1682	373.6	7.58	2156	15.8	357.9	7.26	1751	17.1	329.8	6.69	1459	18.0	285.0	5.78
50	54	1940	17.5	16.9	18.3	22.7	25.0	2.40	4.7	12.3	0.27	4.74	46.8	102	2.27	0.100	0.091	11.2	0.61	4703	1940	299	92	D	S	0.2111	409.5	7.55	1904	17.1	395.1	7.28	1654	18.2	373.1	6.87	1456	18.9	336.4	6.20
55	59	1710	18.9	18.2	19.3	23.7	26.1	2.55	4.9	13.1	0.27	5.36	47.8	101	2.42	0.102	0.093	11.0	0.63	4740	1940	292	92	D	S	0.2573	439.9	7.42	1689	18.4	426.5	7.20	1532	19.2	408.3	6.89	1399	19.8	378.4	6.38
60	64	1522	20.1	19.5	20.3	24.7	27.1	2.70	5.1	13.9	0.27	5.97	48.5	99	2.56	0.104	0.095	10.8	0.65	4755	1940	284	91	D	S	0.3061	465.9	7.25	1510	19.6	453.2	7.05	1409	20.3	437.5	6.81	1318	20.8	412.8	6.42
65	69	1365	21.3	20.7	21.2	25.5	28.0	2.84	5.3	14.6	0.27	6.59	48.8	98	2.71	0.106	0.097	10.6	0.67	4755	1940	276	90	D	S	0.3570	487.3	7.03	1358	20.8	475.2	6.86	1291	21.3	461.1	6.66	1229	21.8	440.4	6.36
70	74	1235	22.5	21.9	22.1	26.3	28.8	2.97	5.5	15.2	0.27	7.20	49.1	97	2.85	0.108	0.099	10.3	0.68	4744	1940	268	89	D	S	0.4093	505.5	6.81	1230	21.9	493.9	6.65	1186	22.3	480.9	6.48	1142	22.7	463.3	6.24
75	79	1125	23.6	22.9	22.8	27.0	29.5	3.09	5.7	15.7	0.27	7.80	49.2	95	2.98	0.110	0.101	10.1	0.69	4727	1940	261	88	D	S	0.4626	520.4	6.56	1122	23.0	509.2	6.42	1091	23.3	496.9	6.27	1060	23.6	481.8	6.08
80	84	1032	24.6	24.0	23.5	27.7	30.1	3.21	5.9	16.2	0.27	8.39	49.1	94	3.11	0.113	0.103	9.9	0.70	4706	1940	254	87	D	S	0.5162	532.7	6.32	1030	24.0	522.0	6.19	1009	24.3	510.2	6.05	986	24.5	497.0	5.90
85	89	952	25.6	24.9	24.2	28.2	30.7	3.32	6.1	16.7	0.27	8.97	49.0	93	3.24	0.115	0.106	9.7	0.71	4684	1940	247	85	D	S	0.5700	542.6	6.08	951	25.0	532.1	5.96	935	25.2	520.7	5.83	919	25.4	509.1	5.70
90	94	884	26.5	25.9	24.8	28.8	31.2	3.42	6.3	17.1	0.27	9.54	48.9	92	3.36	0.117	0.108	9.5	0.72	4661	1940	241	84	D	S	0.6233	551.0	5.84	883	25.9	540.8	5.74	872	26.1	529.8	5.62	860	26.3	519.4	5.51
95	99	825	27.4	26.8	25.3	29.3	31.7	3.52	6.4	17.4	0.27	10.09	48.8	91	3.48	0.119	0.110	9.3	0.73	4638	1940	235	83	D	S	0.6761	557.8	5.62	825	26.8	547.8	5.52	816	26.9	537.0	5.41	807	27.1	527.6	5.31
100	104	774	28.3	27.6	25.8	29.7	32.1	3.61	6.6	17.7	0.27	10.63	48.6	90	3.59	0.121	0.112	9.1	0.74	4617	1940	230	82	D	S	0.7280	563.5	5.40	774	27.6	553.7	5.31	767	27.8	543.1	5.21	760	27.9	534.5	5.13
105	109	729	29.1	28.4	26.3	30.1	32.5	3.70	6.7	18.0	0.27	11.16	48.4	89	3.70	0.123	0.114	9.0	0.75	4597	1940	225	81	D	S	0.7789	567.8	5.20	729	28.4	558.2	5.11	724	28.5	547.8	5.01	718	28.7	539.9	4.94
110	114	689	29.9	29.2	26.7	30.5	32.9	3.79	6.9	18.2	0.27	11.67	48.2	88	3.81	0.125	0.116	8.8	0.75	4579	1940	221	80	D	S	0.8284	570.8	5.00	689	29.2	561.4	4.91	685	29.3	551.2	4.82	681	29.4	544.0	4.76
115	119	654	30.6	29.9	27.2	30.9	33.2	3.87	7.0	18.4	0.27	12.17	48.0	87	3.91	0.127	0.118	8.7	0.76	4562	1940	216	80	D	S	0.8769	573.5	4.81	654	29.9	564.2	4.73	651	30.0	554.1	4.65	648	30.1	547.4	4.59
120	124	624	31.3	30.6	27.5	31.2	33.5	3.95	7.1	18.6	0.28	12.65	48.0	86	4.00	0.128	0.119	8.6	0.77	4548	1940	213	79	D	S	0.9239	576.5	4.64	624	30.6	567.3	4.57	622	30.7	557.3	4.48	619	30.7	551.0	4.43
125	129	596	31.9	31.3	27.9	31.5	33.8	4.02	7.2	18.8	0.28	13.12	47.8	85	4.10	0.130	0.121	8.5	0.78	4536	1940	209	78	D	S	0.9693	577.7	4.47	596	31.3	568.6	4.40	594	31.3	558.7	4.32	592	31.4	552.8	4.28
130	134	571	32.6	31.9	28.2	31.8	34.1	4.09	7.3	18.9	0.28	13.57	47.6	84	4.18	0.132	0.123	8.3	0.79	4526	1940	206	77	D	S	1.0131	578.5	4.31	571	31.9	569.6	4.24	570	31.9	559.8	4.17	568	32.0	554.2	4.13
135	139	549	33.2	32.5	28.6	32.1	34.3	4.16	7.4	19.0	0.28	14.01	47.5	83	4.27	0.133	0.124	8.2	0.80	4518	1940	203	77	D	S	1.0556	579.5	4.16	549	32.5	570.7	4.10	548	32.5	560.9	4.03	546	32.6	555.7	3.99
140	144	529	33.8	33.1	28.9	32.3	34.5	4.22	7.5	19.1	0.28	14.43	47.4	82	4.35	0.134	0.126	8.2	0.81	4511	1940	201	76	D	S	1.0964	580.0	4.02	529	33.1	571.2	3.96	528	33.1	561.5	3.89	527	33.2	556.6	3.86
145	149	511	34.3	33.6	29.1	32.6	34.8	4.28	7.6	19.2	0.28	14.85	47.3	81	4.42	0.136	0.127	8.1	0.82	4507	1940	198	76	D	S	1.1358	580.4	3.89	511	33.6	571.7	3.83	510	33.7	562.0	3.76	509	33.7	557.3	3.73
150	154	495	34.9	34.2	29.4	32.8	35.0	4.34	7.7	19.2	0.28	15.25	47.2	80	4.49	0.137	0.129	8.0	0.83	4504	1940	196	75	D	S	1.1737	581.0	3.77	495	34.2	572.3	3.71	495	34.2	562.7	3.65	494	34.2	558.2	3.62
155	159	480	35.4	34.7	29.7	33.0	35.2	4.40	7.8	19.3	0.28	15.64	47.1	80	4.56	0.138	0.130	7.9	0.84	4503	1940	194	75	D	S	1.2100	580.8	3.65	480	34.7	572.2	3.59	480	34.7	562.6	3.53	479	34.7	558.3	3.51
160	164	466	35.9	35.2	29.9	33.2	35.3	4.45	7.8	19.3	0.29	16.01	47.0	79	4.63	0.140	0.131	7.9	0.85	4503	1940	192	75	D	S	1.2446	580.0	3.53	466	35.2	571.5	3.48	466	35.2	562.0	3.42	465	35.2	557.9	3.40
165	169	454	36.3	35.6	30.1	33.4	35.5	4.50	7.9	19.3	0.29	16.38	47.0	78	4.69	0.141	0.132	7.8	0.86	4505	1940	190	74	D	S	1.2782	580.3	3.43	454	35.6	571.8	3.38	454	35.6	562.3	3.32	453	35.7	558.3	3.30
170	174	443	36.8	36.1	30.3	33.6	35.7	4.55	8.0	19.4	0.29	16.74	47.0	77	4.75	0.142	0.133	7.8	0.88	4508	1940	189	74	D	S	1.3102	580.4	3.33	443	36.1	571.9	3.28	443	36.1	562.5	3.23	442	36.1	558.6	3.21
175	179	432	37.2	36.5	30.5	33.7	35.8	4.60	8.0	19.4	0.29	17.08	47.0	77	4.81	0.143	0.134	7.7	0.89	4512	1940	187	74	D	S	1.3407	579.2	3.23	432	36.5	570.8	3.18	432	36.5	561.4	3.13	432	36.5	557.7	3.11
180	184	423	37.6	36.9	30.7	33.9	36.0	4.64	8.1	19.4	0.29	17.42	47.0	76	4.86	0.143	0.135	7.7	0.90	4518	1940	186	74	D	S	1.3702	579.6	3.15	423	36.9	571.2	3.10	423	36.9	561.7	3.05	423	36.9	558.2	3.03

Table A132. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 25 m Initial Density = 8000 stems/ha																																								
5	9	7659	2.1	2.0	2.8	4.0	4.3	0.74	1.8	0.9	0.66	0.44	2.6	154	1.14	0.284	0.264	1.8	0.03	1262	2013	86	33	B	S	0.0005	3.8	0.41	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	14	6945	4.2	3.9	5.0	7.1	7.7	0.92	2.4	2.3	0.50	0.68	9.6	128	1.20	0.170	0.155	4.7	0.11	1990	2013	167	47	B	S	0.0036	24.9	1.74	44	8.1	0.5	0.04	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	19	6057	6.1	5.8	7.1	9.9	11.0	1.12	2.8	3.8	0.41	1.01	17.8	121	1.28	0.129	0.117	7.2	0.21	2719	2013	231	61	C	S	0.0108	65.5	3.40	1343	8.5	24.1	1.25	6	12.5	0.3	0.02	0	0.0	0.0	0.00
20	24	5165	7.9	7.5	9.1	12.5	13.9	1.31	3.1	5.3	0.36	1.41	25.5	117	1.39	0.111	0.100	9.1	0.31	3342	2013	275	73	D	S	0.0230	118.6	4.89	2776	9.4	80.4	3.31	188	13.0	12.6	0.52	28	14.6	2.1	0.09
25	29	4364	9.7	9.2	11.0	14.8	16.5	1.50	3.3	6.7	0.33	1.87	32.0	113	1.51	0.102	0.092	10.3	0.40	3828	2013	302	81	D	S	0.0405	176.6	6.03	3238	10.5	145.6	4.97	751	13.6	62.0	2.12	252	15.1	23.2	0.79
30	34	3685	11.3	10.8	12.7	16.8	18.7	1.69	3.6	8.0	0.31	2.37	37.1	111	1.65	0.098	0.088	11.0	0.47	4185	2013	315	87	D	S	0.0634	233.7	6.82	3149	11.7	208.7	6.09	1342	14.3	136.3	3.98	691	15.6	76.8	2.24
35	39	3127	12.9	12.4	14.2	18.5	20.6	1.87	3.9	9.2	0.29	2.90	41.0	108	1.79	0.097	0.087	11.4	0.52	4435	2013	319	91	D	S	0.0917	286.8	7.30	2863	13.0	265.8	6.77	1696	15.1	211.2	5.38	1110	16.3	148.4	3.78
40	44	2675	14.5	13.9	15.7	20.1	22.3	2.05	4.1	10.3	0.28	3.46	43.9	106	1.93	0.096	0.087	11.5	0.56	4603	2013	318	93	D	S	0.1250	334.4	7.55	2540	14.3	316.2	7.14	1819	16.0	276.4	6.24	1373	17.0	220.1	4.97
45	49	2309	15.9	15.3	17.0	21.4	23.7	2.22	4.4	11.3	0.28	4.05	45.9	104	2.08	0.097	0.088	11.5	0.60	4710	2013	312	93	D	S	0.1628	376.0	7.63	2237	15.6	359.8	7.30	1795	17.0	330.0	6.70	1482	17.9	283.0	5.74
50	54	2013	17.3	16.7	18.1	22.6	25.0	2.38	4.6	12.2	0.27	4.65	47.4	103	2.23	0.099	0.089	11.4	0.62	4773	2013	305	94	D	S	0.2046	411.8	7.59	1973	16.9	397.0	7.32	1700	18.0	373.9	6.89	1486	18.7	335.4	6.18
55	59	1772	18.6	18.0	19.2	23.7	26.1	2.53	4.8	13.0	0.27	5.25	48.3	101	2.38	0.100	0.091	11.2	0.64	4805	2013	297	93	D	S	0.2497	442.4	7.46	1749	18.2	428.6	7.23	1577	19.1	409.6	6.91	1432	19.7	378.2	6.38
60	64	1574	19.9	19.3	20.2	24.6	27.1	2.67	5.1	13.8	0.27	5.86	49.0	100	2.52	0.102	0.093	11.0	0.66	4814	2013	289	92	D	S	0.2974	468.1	7.28	1560	19.4	455.2	7.08	1450	20.1	438.9	6.83	1351	20.6	412.9	6.42
65	69	1410	21.1	20.5	21.1	25.5	28.0	2.81	5.3	14.5	0.27	6.46	49.3	98	2.66	0.104	0.095	10.7	0.67	4809	2013	280	91	D	S	0.3472	489.6	7.07	1402	20.6	477.3	6.89	1329	21.1	462.7	6.68	1261	21.6	441.1	6.37
70	74	1274	22.3	21.6	21.9	26.3	28.8	2.94	5.5	15.1	0.26	7.07	49.5	97	2.80	0.107	0.097	10.5	0.68	4794	2013	272	90	D	S	0.3985	507.7	6.84	1269	21.7	496.0	6.68	1220	22.1	482.6	6.50	1172	22.5	464.2	6.25
75	79	1159	23.3	22.7	22.7	27.0	29.5	3.06	5.7	15.7	0.26	7.66	49.6	96	2.94	0.109	0.100	10.3	0.69	4773	2013	265	89	D	S	0.4508	522.5	6.59	1156	22.7	511.2	6.45	1122	23.1	498.6	6.29	1088	23.4	482.8	6.09
80	84	1062	24.4	23.7	23.4	27.6	30.1	3.18	5.9	16.1	0.26	8.25	49.5	95	3.07	0.111	0.102	10.0	0.70	4749	2013	257	88	D	S	0.5036	534.8	6.35	1060	23.8	523.8	6.22	1036	24.1	511.9	6.07	1012	24.3	498.1	5.91
85	89	979	25.4	24.7	24.0	28.2	30.7	3.29	6.0	16.6	0.27	8.82	49.4	93	3.20	0.113	0.104	9.8	0.71	4723	2013	250	86	D	S	0.5564	544.7	6.10	978	24.7	534.1	5.98	961	25.0	522.6	5.85	943	25.2	510.5	5.72
90	94	908	26.3	25.6	24.6	28.7	31.2	3.39	6.2	17.0	0.27	9.38	49.3	92	3.32	0.116	0.106	9.6	0.72	4697	2013	244	85	D	S	0.6090	553.0	5.87	907	25.6	542.7	5.76	895	25.9	531.5	5.64	881	26.1	520.6	5.52
95	99	846	27.2	26.5	25.2	29.2	31.7	3.49	6.4	17.3	0.27	9.93	49.1	91	3.44	0.118	0.109	9.4	0.73	4671	2013	238	84	D	S	0.6611	559.3	5.63	846	26.5	549.2	5.53	836	26.7	538.3	5.42	826	26.9	528.5	5.32
100	104	793	28.0	27.4	25.7	29.7	32.1	3.59	6.5	17.6	0.27	10.47	48.9	90	3.55	0.120	0.111	9.2	0.74	4647	2013	233	83	D	S	0.7124	564.9	5.42	793	27.4	555.0	5.32	786	27.5	544.4	5.22	778	27.7	535.5	5.14
105	109	746	28.8	28.2	26.1	30.1	32.5	3.68	6.7	17.9	0.27	10.99	48.7	89	3.66	0.122	0.113	9.1	0.75	4624	2013	228	82	D	S	0.7627	569.0	5.21	746	28.2	559.3	5.12	741	28.3	548.8	5.02	734	28.4	540.6	4.95
110	114	705	29.6	28.9	26.6	30.5	32.9	3.76	6.8	18.1	0.27	11.50	48.5	88	3.77	0.124	0.115	8.9	0.75	4603	2013	223	81	D	S	0.8118	572.3	5.01	705	28.9	562.8	4.93	701	29.0	552.5	4.84	696	29.1	545.0	4.77
115	119	669	30.3	29.6	27.0	30.8	33.2	3.84	6.9	18.4	0.27	11.99	48.3	87	3.87	0.125	0.116	8.8	0.76	4585	2013	219	80	D	S	0.8598	575.2	4.82	669	29.6	565.8	4.74	666	29.7	555.6	4.66	662	29.8	548.7	4.60
120	124	637	31.0	30.3	27.4	31.2	33.5	3.92	7.1	18.5	0.27	12.47	48.2	86	3.96	0.127	0.118	8.6	0.77	4568	2013	215	79	D	S	0.9063	577.3	4.65	637	30.3	568.1	4.57	635	30.4	558.0	4.49	631	30.5	551.5	4.44
125	129	608	31.7	31.0	27.7	31.5	33.8	3.99	7.2	18.7	0.28	12.93	48.0	85	4.06	0.129	0.120	8.5	0.78	4554	2013	211	79	D	S	0.9515	578.5	4.48	608	31.0	569.3	4.40	606	31.1	559.4	4.33	604	31.1	553.4	4.28
130	134	583	32.3	31.6	28.1	31.8	34.1	4.06	7.3	18.8	0.28	13.39	47.8	84	4.14	0.130	0.122	8.4	0.79	4542	2013	208	78	D	S	0.9952	580.2	4.32	583	31.6	571.1	4.25	582	31.7	561.3	4.18	579	31.8	555.5	4.14
135	139	560	32.9	32.2	28.4	32.0	34.3	4.13	7.4	18.9	0.28	13.82	47.7	83	4.23	0.132	0.123	8.3	0.80	4532	2013	205	77	D	S	1.0373	580.9	4.17	560	32.2	572.0	4.11	559	32.3	562.2	4.04	557	32.3	556.8	4.00
140	144	539	33.5	32.8	28.7	32.3	34.5	4.19	7.5	19.0	0.28	14.25	47.5	82	4.31	0.133	0.125	8.2	0.81	4524	2013	202	77	D	S	1.0779	581.0	4.03	539	32.8	572.2	3.97	538	32.9	562.4	3.90	537	32.9	557.4	3.86
145	149	520	34.1	33.4	29.0	32.5	34.8	4.25	7.6	19.1	0.28	14.66	47.4	82	4.39	0.135	0.126	8.1	0.82	4518	2013	200	76	D	S	1.1171	580.9	3.89	520	33.4	572.1	3.83	519	33.4	562.4	3.77	518	33.5	557.6	3.74
150	154	503	34.6	33.9	29.2	32.7	35.0	4.31	7.6	19.2	0.28	15.06	47.3	81	4.46	0.136	0.128	8.0	0.83	4513	2013	197	76	D	S	1.1547	580.8	3.76	503	33.9	572.1	3.71	503	33.9	562.6	3.65	501	34.0	557.9	3.62
155	159	488	35.1	34.4	29.5	32.9	35.2	4.37	7.7	19.2	0.28	15.45	47.3	80	4.53	0.137	0.129	8.0	0.84	4511	2013	195	75	D	S	1.1910	581.2	3.65	488	34.4	572.6	3.60	488	34.4	563.0	3.53	487	34.5	558.6	3.51
160	164	474	35.6	34.9	29.7	33.1	35.3	4.42	7.8	19.3	0.29	15.82	47.2	79	4.59	0.139	0.130	7.9	0.85	4510	2013	193	75	D	S	1.2257	581.0	3.54	474	34.9	572.4	3.48	474	34.9	562.9	3.43	473	35.0	558.7	3.40
165	169	461	36.1	35.4	30.0	33.3	35.5	4.47	7.9	19.3	0.29	16.19	47.1	78	4.66	0.140	0.131	7.8	0.86	4510	2013	191	75	D	S	1.2592	580.5	3.43	461	35.4	571.9	3.38	461	35.4	562.4	3.32	460	35.4	558.3	3.30
170	174	449	36.5	35.8	30.2	33.5	35.7	4.52	7.9	19.3	0.29	16.54	47.1	78	4.72	0.141	0.132	7.8	0.87	4512	2013	190	74	D	S	1.2911	579.7	3.33	449	35.8	571.2	3.28	449	35.8	561.7	3.22	448	35.9	557.8	3.20
175	179	439	37.0	36.3	30.4	33.7	35.8	4.57	8.0	19.3	0.29	16.89	47.1	77	4.77	0.142	0.133	7.8	0.88	4515	2013	189	74	D	S	1.3219	580.3	3.24	439	36.3	571.8	3.19	439	36.3	562.4	3.14	438	36.3	558.5	3.12
180	184	429	37.4	36.7	30.6	33.8	36.0	4.62	8.0	19.3	0.29	17.22	47.1	76	4.83	0.143	0.134	7.7	0.89	4519	2013	187	74	D	S	1.3510	579.6	3.15	429	36.7	571.2	3.10	429	36.7	561.8	3.05	429	36.7	558.1	3.03
SI = 25 m Initial Density = 9000 stems/ha																																								
5	9	8595	2.0	1.9	2.8	4.0	4.3	0.74	1.7	0.9	0.65	0.43	2.8	158	1.08	0.268	0.249	1.9	0.03	1390	2154	93	37	B	S	0.0005	3.9	0.42	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	14	7753	4.1	3.8	4.9	7.0	7.7	0.91	2.3	2.3	0.50	0.66	10.0	131	1.14	0.161	0.147	5.0	0.12	2149	2154	179	51	C	S	0.0033	25.6	1.79	30	8.1	0.3	0.02	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	19	6717	5.9	5.6	7.0	9.9	11.0	1.10	2.7	3.8	0.41	0.98	18.5	123	1.22	0.123	0.111	7.6	0.22	2897	2154	247	66	C	S	0.0100	67.1	3.48	1281	8.5	22.1	1.15	3	12.5	0.2	0.01	0	0.0	0.0	0.00
20	24	5688	7.7	7.3	9.0	12.5	13.9	1.29	3.0	5.3	0.36	1.36	26.5	118	1.33	0.106	0.095	9.5	0.33	3526	2154	292	77	D	S	0.0213	121.2	4.99	2868	9.3	78.8	3.25	150	13.0	9.9	0.41	19	14.6	1.4	0.06
25	29	4774	9.4	8.9	10.8	14.8	16.5	1.47	3.2	6.6	0.32	1.79	33.1	114	1.45	0.098	0.088	10.8	0.41	4009	2154	318	86	D	S	0.0377	179.8	6.14	3432	10.3	145.6	4.97	690	13.5	55.7	1.90	209	15.0	18.9	0.65
30	34	4008	11.0	10.5	12.5	16.7	18.7	1.66	3.5	7.9	0.30	2.27	38.3	111	1.58	0.094	0.085	11.5	0.48	4357	2154	331	91	D	S	0.0592	237.3	6.92	3366	11.5	209.9	6.12	1318	14.1	129.8	3.79	637	15.5	69.0	2.01
35	39	3385	12.6	12.1	14.1	18.5	20.6	1.84	3.8	9.1	0.29	2.79	42.2	109	1.72	0.093	0.083	11.9	0.54	4597	2154	334	94	D	S	0.0859	290.7	7.40	3068	12.7	268.0	6.82	1724	14.9	206.9	5.27	1082	16.1	140.1	3.57
40	44	2883	14.1	13.6	15.5	20.0	22.3	2.01	4.0	10.2	0.28	3.33	45.0	107	1.86	0.093	0.084	12.0	0.58	4753	2154	331	96	D	S	0.1174	338.4	7.64	2720	14.0	318.9	7.20	1881	15.8	274.3	6.20	1381	16.8	213.3	4.82
45	49	2479	15.5	15.0	16.7	21.4	23.7	2.17	4.3	11.1	0.27	3.90	47.0	105	2.01	0.094	0.085	11.9	0.61	4849	2154	325	97	D	S	0.1532	379.9	7.71	2392	15.3	362.7	7.36	1875	16.7	329.7	6.69	1518	17.6	278.3	5.65
50	54	2154	16.9	16.3	17.9	22.6	25.0	2.33	4.5	12.1	0.27	4.47	48.4	103	2.15	0.096	0.086	11.8	0.63	4902	2154	317	96	D	S	0.1930	415.8	7.66	2106	16.6	400.2	7.37	1784	17.7	374.7	6.90	1539	18.5	332.6	6.13
55	59	1890	18.2	17.6	19.0	23.6	26.1	2.48	4.7	12.9	0.27	5.06	49.3	102	2.30	0.097	0.088	11.6	0.65	4923	2154	308	96	D	S	0.2361	446.2	7.53	1862	17.8	431.8	7.29	1660	18.7	411.2	6.94	1492	19.4	376.8	6.36
60	64	1675	19.5	18.9	20.0	24.6	27.1	2.62	5.0	13.6	0.26	5.65	49.9	100	2.44	0.099	0.090	11.3	0.67	4924	2154	299	95	D	S	0.2818	472.0	7.34	1658	19.0	458.5	7.13	1528	19.7	441.1	6.86	1413	20.3	412.7	6.42
65	69	1497	20.7	20.0	20.8	25.4	28.0	2.76	5.2	14.3	0.26	6.24	50.2	99	2.58	0.102	0.092	11.0	0.68	4910	2154	289	93	D	S	0.3297	493.5	7.12	1487	20.1	480.7	6.94	1401	20.7	465.3	6.72	1322	21.2	441.8	6.38
70	74	1349	21.8	21.2	21.7	26.2	28.8	2.89	5.4	14.9	0.26	6.83	50.4	98	2.72	0.104	0.095	10.8	0.69	4887	2154	281	92	D	S	0.3791	511.4	6.89	1343	21.2	499.2	6.72	1285	21.7	485.2	6.53	1229	22.1	465.2	6.26
75	79	1225	22.9	22.2	22.4	26.9	29.5	3.01	5.6	15.5	0.26	7.41	50.4	96	2.86	0.106	0.097	10.5	0.70	4859	2154	272	91	D	S	0.4296	526.2	6.64	1221	22.3	514.5	6.49	1181	22.7	501.4	6.33	1142	23.0	484.4	6.11
80	84	1120	23.9	23.3	23.1	27.5	30.1	3.13	5.8	16.0	0.26	7.98	50.3	95	2.99	0.109	0.099	10.3	0.71	4828	2154	264	89	D	S	0.4806	538.3	6.39	1117	23.3	527.0	6.25	1089	23.6	514.6	6.11	1061	23.9	499.8	5.93
85	89	1030	24.9	24.2	23.7	28.1	30.7	3.23	5.9	16.4	0.26	8.54	50.1	94	3.12	0.111	0.102	10.0	0.72	4795	2154	257	88	D	S	0.5318	547.8	6.14	1028	24.3	536.9	6.01	1008	24.5	525.0	5.88	987	24.8	512.0	5.74
90	94	954	25.8	25.2	24.3	28.6	31.2	3.34	6.1	16.8	0.26	9.10	49.9	93	3.24	0.113	0.104	9.8	0.73	4763	2154	250	87	D	S	0.5830	556.2	5.90	953	25.2	545.6	5.79	938	25.4	534.1	5.67	923	25.6	522.6	5.54
95	99	888	26.7	26.0	24.9	29.1	31.7	3.44	6.3	17.2	0.27	9.64	49.7	92	3.36	0.115	0.106	9.6	0.73	4732	2154	244	86	D	S	0.6338	562.8	5.67	887	26.1	552.4	5.56	876	26.3	541.3	5.45	865	26.4	530.9	5.35
100	104	830	27.5	26.9	25.4	29.6	32.1	3.53	6.4	17.5	0.27	10.16	49.5	91	3.47	0.117	0.108	9.4	0.74	4702	2154	238	84	D	S	0.6839	567.6	5.44	830	26.9	557.5	5.35	821	27.1	546.6	5.24	812	27.2	537.1	5.15
105	109	780	28.3	27.7	25.9	30.0	32.5	3.62	6.6	17.8	0.27	10.68	49.2	90	3.58	0.119	0.110	9.2	0.75	4675	2154	233	83	D	S	0.7331	571.8	5.23	780	27.7	561.9	5.14	774	27.8	551.2	5.04	766	28.0	542.6	4.97
110	114	736	29.1	28.4	26.3	30.4	32.9	3.71	6.7	18.0	0.27	11.18	49.0	89	3.69	0.121	0.112	9.1	0.75	4649	2154	228	82	D	S	0.7813	575.0	5.03	736	28.4	565.3	4.95	731	28.6	554.8	4.86	725	28.7	546.8	4.79
115	119	697	29.8	29.2	26.7	30.7	33.2	3.79	6.8	18.2	0.27	11.66	48.8	88	3.79	0.123	0.114	8.9	0.76	4626	2154	223	81	D	S	0.8283	577.3	4.84	697	29.2	567.7	4.76	693	29.3	557.4	4.67	689	29.4	550.1	4.61
120	124	663	30.5	29.9	27.1	31.1	33.5	3.87	7.0	18.4	0.27	12.14	48.6	87	3.88	0.125	0.116	8.8	0.77	4606	2154	219	80	D	S	0.8741	579.5	4.66	663	29.9	570.1	4.59	660	29.9	559.9	4.51	656	30.0	553.0	4.45
125	129	632	31.2	30.5	27.5	31.4	33.8	3.94	7.1	18.6	0.27	12.60	48.3	86	3.98	0.127	0.118	8.7	0.78	4588	2154	215	80	D	S	0.9185	580.5	4.49	632	30.5	571.2	4.42	630	30.6	561.2	4.34	627	30.7	554.8	4.29
130	134	605	31.8	31.2	27.8	31.6	34.1	4.01	7.2	18.7	0.28	13.04	48.2	85	4.07	0.128	0.119	8.5	0.79	4572	2154	212	79	D	S	0.9617	581.8	4.33	605	31.2	572.6	4.26	603	31.2	562.6	4.19	601	31.3	556.7	4.15
135	139	580	32.5	31.8	28.1	31.9	34.3	4.08	7.3	18.8	0.28	13.48	48.0	84	4.15	0.130	0.121	8.4	0.79	4558	2154	208	78	D	S	1.0033	581.9	4.18	580	31.8	572.9	4.11	579	31.8	563.0	4.04	577	31.9	557.4	4.00
140	144	558	33.0	32.3	28.4	32.2	34.5	4.14	7.4	18.9	0.28	13.90	47.8	83	4.23	0.132	0.123	8.3	0.80	4547	2154	205	78	D	S	1.0435	582.3	4.04	558	32.3	573.4	3.97	557	32.4	563.5	3.91	555	32.5	558.2	3.87
145	149	538	33.6	32.9	28.7	32.4	34.8	4.20	7.5	19.0	0.28	14.31	47.7	82	4.31	0.133	0.124	8.2	0.81	4538	2154	203	77	D	S	1.0823	582.3	3.90	538	32.9	573.5	3.84	537	32.9	563.7	3.78	536	33.0	558.7	3.74
150	154	520	34.1	33.4	29.0	32.6	35.0	4.26	7.6	19.1	0.28	14.71	47.6	81	4.39	0.134	0.125	8.1	0.82	4530	2154	200	76	D	S	1.1198	582.3	3.77	520	33.4	573.5	3.72	519	33.5	563.8	3.65	518	33.5	559.0	3.62
155	159	504	34.6	34.0	29.2	32.8	35.2	4.32	7.6	19.1	0.28	15.09	47.5	81	4.45	0.136	0.127	8.1	0.83	4525	2154	198	76	D	S	1.1560	582.6	3.66	504	34.0	573.8	3.60	504	34.0	564.2	3.54	502	34.0	559.5	3.51
160	164	489	35.1	34.4	29.4	33.0	35.3	4.37	7.7	19.2	0.28	15.47	47.4	80	4.52	0.137	0.128	8.0	0.84	4521	2154	196	76	D	S	1.1904	582.1	3.54	489	34.4	573.5	3.49	489	34.4	563.9	3.43	488	34.5	559.5	3.41
165	169	475	35.6	34.9	29.7	33.2	35.5	4.42	7.8	19.2	0.29	15.83	47.3	79	4.59	0.138	0.129	7.9	0.85	4519	2154	194	75	D	S	1.2238	581.3	3.43	475	34.9	572.6	3.38	475	34.9	563.1	3.33	474	35.0	558.9	3.30
170	174	462	36.1	35.4	29.9	33.4	35.7	4.47	7.9	19.2	0.29	16.19	47.2	78	4.65	0.139	0.130	7.9	0.86	4519	2154	192	75	D	S	1.2556	580.1	3.33	462	35.4	571.5	3.28	462	35.4	562.0	3.22	461	35.4	557.9	3.20
175	179	451	36.5	35.8	30.1	33.6	35.8	4.52	7.9	19.3	0.29	16.53	47.2	77	4.71	0.140	0.131	7.8	0.87	4520	2154	190	75	D	S	1.2863	580.1	3.24	451	35.8	571.6	3.19	451	35.8	562.1	3.14	450	35.9	558.1	3.11
180	184	440	36.9	36.2	30.3	33.7	36.0	4.57	8.0	19.2	0.29	16.87	47.2	77	4.77	0.141	0.133	7.8	0.88	4522	2154	189	74	D	S	1.3155	578.8	3.14	440	36.2	570.3	3.09	440	36.2	560.9	3.04	439	36.3	557.1	3.02

Table A133. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 25 m Initial Density = 10000 stems/ha																																								
5	9	9529	2.0	1.8	2.8	4.0	4.3	0.73	1.7	0.9	0.65	0.42	2.9	161	1.02	0.255	0.236	2.0	0.03	1515	2290	100	40	B	S	0.0004	4.0	0.43	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	14	8554	3.9	3.7	4.9	7.0	7.7	0.90	2.2	2.2	0.49	0.65	10.4	132	1.08	0.154	0.140	5.3	0.12	2302	2290	191	55	C	S	0.0031	26.3	1.84	21	8.0	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	19	7366	5.8	5.4	6.9	9.9	11.0	1.08	2.6	3.8	0.40	0.95	19.2	124	1.17	0.118	0.106	8.0	0.23	3066	2290	261	70	C	S	0.0093	68.6	3.56	1212	8.4	20.2	1.05	2	12.3	0.1	0.01	0	0.0	0.0	0.00
20	24	6199	7.5	7.1	8.9	12.5	13.9	1.26	2.9	5.2	0.35	1.31	27.4	119	1.27	0.102	0.091	10.0	0.34	3699	2290	307	81	D	S	0.0199	123.4	5.08	2935	9.1	77.0	3.17	120	12.9	7.8	0.32	13	14.5	1.0	0.04
25	29	5173	9.2	8.7	10.7	14.7	16.5	1.45	3.2	6.6	0.32	1.73	34.1	115	1.39	0.094	0.084	11.3	0.43	4177	2290	334	89	D	S	0.0353	182.5	6.24	3603	10.1	145.0	4.95	631	13.4	49.9	1.70	173	14.9	15.4	0.53
30	34	4321	10.8	10.3	12.4	16.7	18.7	1.63	3.4	7.8	0.30	2.19	39.3	112	1.52	0.091	0.081	12.0	0.50	4516	2290	345	95	D	S	0.0556	240.4	7.01	3567	11.3	210.5	6.14	1285	14.0	123.2	3.60	584	15.4	61.8	1.80
35	39	3633	12.3	11.8	13.9	18.4	20.6	1.80	3.7	9.0	0.29	2.69	43.2	110	1.66	0.090	0.081	12.3	0.55	4745	2290	347	98	D	S	0.0809	293.8	7.48	3260	12.5	269.4	6.86	1737	14.8	201.9	5.14	1048	16.0	131.9	3.36
40	44	3083	13.8	13.2	15.3	20.0	22.3	1.97	3.9	10.0	0.28	3.21	46.0	107	1.80	0.090	0.081	12.4	0.59	4891	2290	343	99	D	S	0.1108	341.6	7.72	2891	13.7	320.8	7.25	1931	15.6	271.4	6.13	1380	16.7	206.3	4.66
45	49	2643	15.2	14.6	16.5	21.3	23.7	2.14	4.2	11.0	0.27	3.76	48.0	106	1.95	0.091	0.082	12.3	0.62	4976	2290	336	99	D	S	0.1450	383.2	7.78	2540	15.0	365.0	7.41	1944	16.5	328.6	6.67	1544	17.4	273.1	5.54
50	54	2290	16.6	16.0	17.7	22.5	25.0	2.29	4.4	11.9	0.27	4.32	49.3	104	2.09	0.093	0.084	12.1	0.65	5019	2290	327	99	D	S	0.1830	419.0	7.72	2233	16.2	402.6	7.42	1861	17.5	374.8	6.91	1583	18.2	329.2	6.07
55	59	2004	17.9	17.3	18.8	23.5	26.1	2.44	4.6	12.7	0.27	4.89	50.2	102	2.23	0.095	0.086	11.9	0.66	5031	2290	317	98	D	S	0.2242	449.3	7.58	1971	17.5	434.3	7.33	1736	18.4	412.1	6.95	1545	19.1	374.8	6.32
60	64	1772	19.1	18.5	19.7	24.5	27.1	2.58	4.9	13.5	0.26	5.47	50.8	101	2.38	0.097	0.088	11.6	0.68	5023	2290	307	97	D	S	0.2682	475.2	7.39	1752	18.6	461.1	7.17	1601	19.4	442.5	6.89	1469	20.0	411.8	6.41
65	69	1580	20.3	19.7	20.6	25.3	28.0	2.71	5.1	14.2	0.26	6.04	51.0	99	2.52	0.099	0.090	11.3	0.69	5002	2290	298	95	D	S	0.3142	496.4	7.17	1568	19.8	483.2	6.98	1468	20.4	467.0	6.74	1377	20.9	441.5	6.37
70	74	1421	21.4	20.8	21.4	26.1	28.8	2.84	5.3	14.8	0.26	6.62	51.1	98	2.65	0.102	0.092	11.0	0.70	4972	2290	288	94	D	S	0.3619	514.2	6.92	1413	20.9	501.7	6.76	1346	21.4	487.0	6.56	1282	21.8	465.5	6.27
75	79	1288	22.5	21.8	22.2	26.8	29.5	2.96	5.5	15.3	0.26	7.18	51.1	97	2.79	0.104	0.095	10.8	0.71	4937	2290	279	93	D	S	0.4107	529.0	6.67	1283	21.9	516.9	6.52	1237	22.3	503.4	6.35	1191	22.7	485.0	6.12
80	84	1175	23.5	22.8	22.9	27.4	30.1	3.08	5.7	15.8	0.26	7.75	50.9	96	2.92	0.106	0.097	10.5	0.72	4899	2290	271	91	D	S	0.4602	540.7	6.42	1172	22.9	529.1	6.28	1139	23.2	516.4	6.13	1106	23.6	500.5	5.94
85	89	1080	24.5	23.8	23.5	28.0	30.7	3.19	5.8	16.3	0.26	8.30	50.7	95	3.04	0.109	0.099	10.3	0.72	4861	2290	263	90	D	S	0.5100	550.8	6.17	1078	23.8	539.6	6.04	1055	24.1	527.5	5.91	1030	24.4	513.5	5.75
90	94	998	25.4	24.7	24.1	28.5	31.2	3.29	6.0	16.7	0.26	8.84	50.5	93	3.17	0.111	0.101	10.0	0.73	4823	2290	256	88	D	S	0.5598	558.7	5.93	997	24.7	547.8	5.81	980	25.0	536.1	5.69	961	25.2	523.7	5.56
95	99	927	26.3	25.6	24.6	29.0	31.7	3.39	6.2	17.0	0.26	9.37	50.2	92	3.28	0.113	0.104	9.8	0.74	4787	2290	249	87	D	S	0.6093	564.8	5.69	926	25.6	554.2	5.58	913	25.8	542.8	5.47	900	26.0	531.8	5.36
100	104	866	27.1	26.4	25.1	29.5	32.1	3.48	6.3	17.4	0.27	9.89	50.0	91	3.40	0.115	0.106	9.6	0.74	4753	2290	243	86	D	S	0.6582	570.0	5.47	866	26.4	559.7	5.37	856	26.6	548.6	5.26	845	26.8	538.6	5.17
105	109	813	27.9	27.2	25.6	29.9	32.5	3.57	6.5	17.6	0.27	10.39	49.7	90	3.51	0.117	0.108	9.4	0.75	4721	2290	237	84	D	S	0.7064	574.3	5.26	813	27.2	564.2	5.16	805	27.4	553.3	5.06	797	27.5	544.2	4.98
110	114	766	28.7	28.0	26.0	30.3	32.9	3.66	6.6	17.9	0.27	10.89	49.5	89	3.61	0.119	0.110	9.2	0.76	4691	2290	232	83	D	S	0.7537	577.3	5.05	766	28.0	567.4	4.97	760	28.1	556.7	4.87	754	28.3	548.4	4.80
115	119	724	29.4	28.7	26.4	30.6	33.2	3.74	6.7	18.1	0.27	11.37	49.2	88	3.72	0.121	0.112	9.1	0.76	4664	2290	227	82	D	S	0.7997	579.0	4.85	724	28.7	569.3	4.77	720	28.8	558.9	4.69	714	29.0	551.1	4.62
120	124	688	30.1	29.4	26.8	31.0	33.5	3.82	6.9	18.3	0.27	11.84	49.0	87	3.81	0.123	0.114	8.9	0.77	4640	2290	223	81	D	S	0.8449	581.3	4.68	688	29.4	571.7	4.60	685	29.5	561.4	4.52	680	29.6	554.2	4.46
125	129	655	30.8	30.1	27.2	31.3	33.8	3.89	7.0	18.5	0.27	12.29	48.7	86	3.91	0.125	0.116	8.8	0.78	4618	2290	219	81	D	S	0.8887	582.1	4.50	655	30.1	572.7	4.43	652	30.2	562.4	4.35	649	30.2	555.8	4.30
130	134	626	31.4	30.7	27.5	31.5	34.1	3.96	7.1	18.6	0.27	12.73	48.5	85	4.00	0.127	0.117	8.7	0.78	4599	2290	215	80	D	S	0.9312	582.9	4.34	626	30.7	573.6	4.27	624	30.8	563.6	4.20	621	30.9	557.3	4.15
135	139	600	32.0	31.3	27.8	31.8	34.3	4.03	7.2	18.7	0.28	13.17	48.3	84	4.08	0.128	0.119	8.5	0.79	4582	2290	211	79	D	S	0.9723	583.4	4.19	600	31.3	574.3	4.12	598	31.4	564.2	4.05	596	31.5	558.4	4.01
140	144	576	32.6	31.9	28.1	32.1	34.5	4.09	7.3	18.8	0.28	13.58	48.1	84	4.17	0.130	0.121	8.4	0.80	4568	2290	208	78	D	S	1.0122	583.0	4.04	576	31.9	574.0	3.98	575	31.9	564.1	3.91	573	32.0	558.5	3.87
145	149	555	33.2	32.5	28.4	32.3	34.8	4.15	7.4	18.9	0.28	13.99	47.9	83	4.24	0.131	0.122	8.3	0.81	4556	2290	205	78	D	S	1.0506	583.1	3.91	555	32.5	574.2	3.85	554	32.5	564.3	3.78	552	32.6	559.0	3.74
150	154	536	33.7	33.0	28.7	32.5	35.0	4.21	7.5	19.0	0.28	14.39	47.8	82	4.32	0.133	0.124	8.2	0.81	4546	2290	203	77	D	S	1.0879	583.1	3.78	536	33.0	574.2	3.72	535	33.0	564.4	3.66	534	33.1	559.4	3.63
155	159	518	34.2	33.5	28.9	32.7	35.2	4.27	7.6	19.1	0.28	14.77	47.6	81	4.39	0.134	0.125	8.1	0.82	4538	2290	200	77	D	S	1.1236	582.0	3.65	518	33.5	573.2	3.60	517	33.6	563.5	3.54	516	33.6	558.7	3.51
160	164	502	34.7	34.0	29.2	32.9	35.3	4.32	7.6	19.1	0.28	15.14	47.5	80	4.46	0.136	0.126	8.1	0.83	4532	2290	198	76	D	S	1.1580	581.3	3.54	502	34.0	572.6	3.49	502	34.0	562.9	3.43	500	34.1	558.3	3.40
165	169	488	35.2	34.5	29.4	33.1	35.5	4.38	7.7	19.1	0.29	15.51	47.5	79	4.53	0.137	0.127	8.0	0.84	4527	2290	196	76	D	S	1.1912	581.3	3.43	488	34.5	572.6	3.38	488	34.5	563.0	3.33	487	34.5	558.6	3.30
170	174	474	35.7	35.0	29.6	33.3	35.7	4.43	7.8	19.1	0.29	15.86	47.3	79	4.59	0.138	0.129	7.9	0.85	4524	2290	194	75	D	S	1.2228	579.6	3.33	474	35.0	571.0	3.28	474	35.0	561.5	3.22	473	35.0	557.3	3.20
175	179	462	36.1	35.4	29.8	33.5	35.8	4.47	7.8	19.2	0.29	16.20	47.3	78	4.65	0.139	0.130	7.9	0.85	4523	2290	192	75	D	S	1.2535	579.1	3.23	462	35.4	570.5	3.18	462	35.4	561.0	3.13	461	35.4	556.9	3.11
180	184	451	36.5	35.8	30.0	33.6	36.0	4.52	7.9	19.2	0.29	16.54	47.3	77	4.71	0.140	0.131	7.8	0.86	4524	2290	191	75	D	S	1.2827	578.5	3.14	451	35.8	570.0	3.09	451	35.8	560.5	3.04	450	35.9	556.6	3.02
SI = 25 m Initial Density = 15000 stems/ha																																								
5	9	14167	1.7	1.6	2.7	4.0	4.3	0.72	1.5	0.9	0.62	0.41	3.3	177	0.84	0.210	0.194	2.5	0.04	2119	2909	132	57	C	S	0.0003	4.4	0.47	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	14	12476	3.5	3.3	4.7	7.0	7.7	0.86	2.0	2.2	0.47	0.59	12.0	140	0.90	0.128	0.116	6.4	0.15	3007	2909	243	73	D	S	0.0023	28.6	2.00	2	8.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	19	10490	5.2	4.9	6.6	9.8	11.0	1.02	2.3	3.6	0.38	0.84	21.9	130	0.98	0.099	0.089	9.7	0.27	3813	2909	324	88	D	S	0.0070	73.7	3.82	804	8.2	12.0	0.62	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	24	8621	6.7	6.4	8.5	12.4	13.9	1.18	2.6	5.0	0.34	1.15	30.8	123	1.08	0.087	0.077	11.9	0.39	4438	2909	374	99	D	S	0.0152	130.8	5.39	3070	8.7	66.6	2.74	35	12.7	2.2	0.09	1	14.4	0.1	0.00
25	29	7042	8.3	7.9	10.2	14.6	16.5	1.35	2.8	6.2	0.31	1.50	38.0	119	1.19	0.082	0.072	13.2	0.48	4879	2909	398	106	D	S	0.0272	191.3	6.54	4209	9.6	138.3	4.73	364	13.1	27.1	0.93	63	14.7	5.2	0.18
30	34	5775	9.8	9.3	11.8	16.5	18.7	1.52	3.1	7.4	0.29	1.90	43.3	115	1.32	0.080	0.070	13.9	0.55	5170	2909	406	110	D	S	0.0432	249.6	7.28	4371	10.5	208.2	6.08	1076	13.5	93.3	2.72	345	15.1	34.0	0.99
35	39	4780	11.2	10.7	13.2	18.2	20.6	1.68	3.3	8.4	0.28	2.33	47.2	112	1.45	0.079	0.070	14.1	0.61	5347	2909	403	111	D	S	0.0634	303.0	7.72	4075	11.6	270.2	6.88	1700	14.2	174.7	4.45	853	15.5	96.2	2.45
40	44	4002	12.6	12.1	14.5	19.7	22.3	1.84	3.6	9.4	0.27	2.79	49.9	110	1.58	0.080	0.071	14.1	0.64	5442	2909	395	112	D	S	0.0876	350.4	7.92	3639	12.7	323.5	7.31	2062	14.9	251.5	5.68	1297	16.0	170.8	3.86
45	49	3392	13.9	13.4	15.7	21.1	23.7	1.99	3.8	10.4	0.27	3.27	51.7	108	1.72	0.082	0.072	13.9	0.67	5481	2909	383	111	D	S	0.1154	391.6	7.95	3195	13.9	368.8	7.49	2183	15.6	315.9	6.41	1583	16.7	243.3	4.94
50	54	2909	15.2	14.7	16.8	22.2	25.0	2.14	4.0	11.3	0.26	3.76	52.9	106	1.85	0.083	0.074	13.6	0.69	5482	2909	370	109	D	S	0.1468	427.0	7.87	2795	15.0	406.9	7.50	2155	16.5	367.5	6.77	1715	17.4	306.2	5.64
55	59	2524	16.4	15.9	17.9	23.3	26.1	2.28	4.3	12.1	0.26	4.27	53.5	104	1.99	0.086	0.076	13.2	0.71	5456	2909	357	108	D	S	0.1811	457.0	7.71	2458	16.1	439.0	7.41	2045	17.3	408.6	6.89	1733	18.1	357.9	6.04
60	64	2212	17.6	17.0	18.8	24.2	27.1	2.41	4.5	12.8	0.26	4.78	53.9	103	2.13	0.088	0.078	12.8	0.72	5413	2909	344	106	D	S	0.2180	482.3	7.50	2171	17.2	465.8	7.25	1901	18.2	441.3	6.87	1681	18.9	399.6	6.22
65	69	1958	18.7	18.1	19.6	25.0	28.0	2.54	4.7	13.5	0.26	5.30	54.0	102	2.26	0.090	0.081	12.5	0.73	5359	2909	331	104	D	S	0.2570	503.3	7.27	1934	18.3	488.1	7.05	1754	19.1	467.5	6.75	1599	19.7	433.0	6.25
70	74	1749	19.8	19.2	20.4	25.8	28.8	2.66	4.9	14.1	0.26	5.81	53.9	100	2.39	0.093	0.083	12.1	0.73	5300	2909	319	102	D	S	0.2978	520.8	7.01	1731	19.3	506.4	6.82	1610	20.0	488.6	6.58	1500	20.5	459.7	6.19
75	79	1574	20.8	20.2	21.1	26.5	29.5	2.78	5.1	14.6	0.26	6.33	53.7	99	2.52	0.095	0.086	11.8	0.74	5238	2909	308	100	D	S	0.3400	535.1	6.75	1562	20.3	521.6	6.58	1479	20.9	505.5	6.38	1399	21.3	481.1	6.07
80	84	1428	21.8	21.2	21.8	27.1	30.1	2.89	5.3	15.2	0.26	6.84	53.4	98	2.65	0.098	0.088	11.4	0.74	5176	2909	297	98	D	S	0.3829	546.8	6.49	1420	21.3	533.9	6.34	1360	21.7	519.2	6.16	1302	22.1	498.2	5.91
85	89	1304	22.8	22.1	22.4	27.7	30.7	2.99	5.5	15.6	0.26	7.34	53.0	97	2.77	0.100	0.090	11.1	0.74	5114	2909	287	96	D	S	0.4265	556.2	6.23	1300	22.2	543.9	6.09	1257	22.6	530.1	5.94	1214	22.9	511.9	5.73
90	94	1198	23.7	23.0	23.0	28.2	31.2	3.10	5.6	16.0	0.26	7.84	52.6	96	2.89	0.103	0.093	10.8	0.75	5055	2909	278	94	D	S	0.4706	563.8	5.98	1193	23.1	551.9	5.85	1160	23.4	538.8	5.72	1130	23.7	522.8	5.55
95	99	1107	24.5	23.9	23.5	28.7	31.7	3.19	5.8	16.4	0.26	8.32	52.2	94	3.01	0.105	0.095	10.5	0.75	4998	2909	270	92	D	S	0.5146	569.7	5.74	1106	23.9	558.2	5.62	1081	24.2	545.7	5.50	1058	24.4	531.5	5.35
100	104	1028	25.3	24.7	24.0	29.1	32.1	3.28	5.9	16.7	0.26	8.81	51.8	93	3.12	0.107	0.097	10.3	0.75	4944	2909	263	91	D	S	0.5587	574.3	5.51	1025	24.7	563.1	5.40	1006	25.0	551.1	5.29	989	25.2	538.4	5.16
105	109	960	26.1	25.4	24.5	29.5	32.5	3.37	6.1	17.0	0.26	9.28	51.4	92	3.23	0.109	0.099	10.1	0.75	4894	2909	256	89	D	S	0.6018	577.7	5.29	956	25.5	566.9	5.19	943	25.7	555.2	5.08	928	25.9	543.7	4.98
110	114	900	26.9	26.2	24.9	29.9	32.9	3.46	6.2	17.3	0.26	9.74	51.0	91	3.33	0.112	0.101	9.8	0.76	4848	2909	249	88	D	S	0.6448	580.3	5.08	899	26.2	569.7	4.99	887	26.4	558.3	4.89	875	26.6	547.9	4.79
115	119	847	27.6	26.9	25.3	30.2	33.2	3.54	6.4	17.5	0.26	10.19	50.6	90	3.44	0.114	0.104	9.6	0.76	4804	2909	243	86	D	S	0.6871	582.0	4.88	845	26.9	571.7	4.79	836	27.1	560.6	4.70	827	27.3	551.0	4.62
120	124	800	28.3	27.6	25.7	30.5	33.5	3.61	6.5	17.7	0.27	10.63	50.3	89	3.54	0.116	0.106	9.4	0.76	4765	2909	238	85	D	S	0.7289	583.1	4.69	800	27.6	573.0	4.61	793	27.8	562.1	4.52	785	27.9	553.3	4.45
125	129	759	28.9	28.3	26.0	30.8	33.8	3.69	6.6	17.9	0.27	11.06	49.9	88	3.63	0.118	0.107	9.3	0.77	4729	2909	233	84	D	S	0.7690	583.7	4.52	756	28.3	573.8	4.44	751	28.4	563.1	4.36	744	28.5	554.9	4.29
130	134	722	29.6	28.9	26.4	31.1	34.1	3.76	6.7	18.1	0.27	11.48	49.6	87	3.72	0.120	0.109	9.1	0.77	4696	2909	228	83	D	S	0.8086	583.8	4.35	722	28.9	574.1	4.28	717	29.0	563.5	4.20	712	29.1	555.9	4.14
135	139	688	30.2	29.5	26.7	31.4	34.3	3.82	6.9	18.2	0.27	11.89	49.3	87	3.81	0.121	0.111	9.0	0.77	4666	2909	224	82	D	S	0.8483	583.6	4.19	687	29.5	574.0	4.12	684	29.6	563.6	4.05	679	29.7	556.5	4.00
140	144	659	30.8	30.1	27.0	31.6	34.5	3.89	7.0	18.3	0.27	12.29	49.0	86	3.90	0.123	0.113	8.8	0.78	4640	2909	220	81	D	S	0.8848	583.1	4.04	660	30.1	573.6	3.98	658	30.2	563.4	3.91	653	30.3	556.7	3.86
145	149	632	31.3	30.6	27.2	31.9	34.8	3.95	7.1	18.4	0.27	12.68	48.7	85	3.98	0.125	0.114	8.7	0.78	4616	2909	216	80	D	S	0.9214	582.3	3.90	630	30.6	573.0	3.84	628	30.7	562.8	3.77	625	30.8	556.5	3.73
150	154	607	31.9	31.2	27.5	32.1	35.0	4.01	7.2	18.5	0.28	13.07	48.5	84	4.06	0.126	0.116	8.6	0.79	4595	2909	213	79	D	S	0.9577	581.3	3.77	606	31.2	572.1	3.71	604	31.3	562.1	3.64	602	31.3	556.1	3.60
155	159	585	32.4	31.7	27.8	32.3	35.2	4.07	7.2	18.6	0.28	13.44	48.3	83	4.13	0.128	0.118	8.5	0.79	4576	2909	210	79	D	S	0.9918	580.2	3.64	583	31.7	571.1	3.59	581	31.8	561.2	3.52	579	31.8	555.5	3.49
160	164	565	32.9	32.2	28.0	32.5	35.3	4.12	7.3	18.7	0.28	13.80	48.1	82	4.21	0.129	0.119	8.4	0.79	4560	2909	207	78	D	S	1.0248	579.0	3.52	564	32.2	570.0	3.47	562	32.3	560.1	3.41	560	32.3	554.7	3.38
165	169	547	33.4	32.7	28.2	32.7	35.5	4.18	7.4	18.7	0.28	14.15	47.9	81	4.28	0.131	0.120	8.3	0.80	4546	2909	204	77	D	S	1.0559	577.6	3.41	546	32.7	568.7	3.36	545	32.7	558.9	3.30	543	32.8	553.8	3.27
170	174	530	33.9	33.1	28.4	32.9	35.7	4.23	7.5	18.7	0.28	14.50	47.7	81	4.34	0.132	0.122	8.2	0.80	4534	2909	202	77	D	S	1.0872	576.2	3.31	529	33.1	567.4	3.26	528	33.2	557.7	3.20	526	33.3	552.8	3.17
175	179	515	34.3	33.6	28.6	33.0	35.8	4.28	7.6	18.8	0.29	14.83	47.6	80	4.41	0.133	0.123	8.1	0.81	4524	2909	199	76	D	S	1.1161	574.8	3.21	514	33.6	566.0	3.16	514	33.6	556.3	3.10	512	33.7	551.7	3.08
180	184	500	34.7	34.0	28.8	33.2	36.0	4.32	7.6	18.8	0.29	15.16	47.4	79	4.47	0.135	0.124	8.0	0.81	4516	2909	197	76	D	S	1.1466	573.3	3.11	499	34.0	564.6	3.06	498	34.1	555.0	3.01	497	34.1	550.5	2.99

Table A134. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
																				SI = 25 m	Initial Density = 20000 stems/ha																			
5	9	18765	1.6	1.4	2.6	4.0	4.3	0.71	1.4	0.9	0.60	0.39	3.6	189	0.73	0.183	0.168	2.9	0.05	2695	3463	161	74	D	S	0.0002	4.6	0.50	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	14	16292	3.2	3.0	4.5	7.0	7.7	0.83	1.8	2.2	0.45	0.55	13.2	146	0.78	0.112	0.101	7.4	0.16	3643	3463	288	90	D	S	0.0018	30.1	2.11	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	19	13465	4.8	4.5	6.4	9.8	11.0	0.98	2.1	3.5	0.37	0.77	23.9	134	0.86	0.088	0.078	11.0	0.30	4453	3463	377	104	D	S	0.0057	76.8	3.99	510	8.0	7.0	0.36	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	24	10883	6.2	5.9	8.1	12.3	13.9	1.13	2.4	4.8	0.33	1.04	33.3	127	0.96	0.078	0.069	13.3	0.42	5046	3463	427	113	D	S	0.0124	134.9	5.56	2896	8.5	55.7	2.30	11	12.6	0.6	0.02	0	0.0	0.0	0.00
25	29	8762	7.7	7.3	9.8	14.5	16.5	1.29	2.6	5.9	0.30	1.36	40.7	121	1.07	0.074	0.065	14.7	0.52	5438	3463	450	119	D	S	0.0223	195.5	6.68	4501	9.2	128.4	4.39	204	12.9	14.5	0.50	22	14.5	1.8	0.06
30	34	7099	9.1	8.7	11.3	16.4	18.7	1.44	2.9	7.0	0.29	1.71	46.1	117	1.19	0.072	0.064	15.3	0.59	5677	3463	454	121	D	S	0.0357	253.4	7.39	4932	10.1	201.2	5.87	830	13.3	67.6	1.97	198	14.9	18.6	0.54
35	39	5817	10.5	10.0	12.7	18.1	20.6	1.59	3.1	8.0	0.28	2.10	49.9	114	1.31	0.072	0.064	15.4	0.64	5806	3463	447	122	D	S	0.0526	306.2	7.80	4709	11.0	265.5	6.76	1535	13.8	145.9	3.72	641	15.2	67.7	1.72
40	44	4829	11.8	11.3	14.0	19.6	22.3	1.74	3.3	9.0	0.27	2.51	52.5	111	1.44	0.074	0.065	15.3	0.68	5858	3463	435	121	D	S	0.0731	352.9	7.97	4248	12.0	320.2	7.23	2039	14.4	226.5	5.12	1130	15.7	137.2	3.10
45	49	4063	13.0	12.5	15.1	20.9	23.7	1.89	3.6	9.9	0.26	2.94	54.2	109	1.57	0.075	0.066	15.0	0.70	5858	3463	420	120	D	S	0.0968	393.4	7.98	3746	13.1	366.2	7.43	2278	15.1	296.4	6.02	1509	16.2	211.1	4.28
50	54	3463	14.3	13.7	16.2	22.0	25.0	2.03	3.8	10.7	0.26	3.39	55.2	107	1.70	0.077	0.068	14.6	0.72	5824	3463	404	117	D	S	0.1237	428.2	7.89	3275	14.2	404.8	7.46	2324	15.8	353.0	6.50	1731	16.8	278.4	5.13
55	59	2987	15.4	14.9	17.1	23.1	26.1	2.16	4.0	11.5	0.26	3.85	55.8	106	1.83	0.079	0.070	14.2	0.73	5768	3463	388	115	D	S	0.1533	457.8	7.72	2878	15.2	437.1	7.37	2254	16.6	397.8	6.71	1817	17.5	335.0	5.65
60	64	2605	16.5	16.0	18.0	24.0	27.1	2.29	4.2	12.2	0.26	4.32	56.0	104	1.96	0.082	0.072	13.8	0.74	5698	3463	372	112	D	S	0.1853	482.6	7.51	2539	16.2	464.0	7.22	2126	17.4	433.1	6.74	1809	18.2	381.1	5.93
65	69	2295	17.6	17.0	18.9	24.8	28.0	2.41	4.4	12.9	0.25	4.79	56.0	103	2.09	0.084	0.075	13.3	0.75	5621	3463	357	110	D	S	0.2193	503.4	7.27	2253	17.2	486.4	7.02	1974	18.2	461.2	6.66	1747	18.9	418.0	6.03
70	74	2040	18.7	18.1	19.6	25.5	28.8	2.53	4.6	13.5	0.25	5.26	55.8	102	2.21	0.087	0.077	12.9	0.75	5540	3463	343	107	D	S	0.2552	520.7	7.01	2012	18.2	504.8	6.80	1823	19.1	483.5	6.51	1658	19.7	447.4	6.02
75	79	1829	19.6	19.0	20.3	26.2	29.5	2.64	4.8	14.1	0.25	5.73	55.4	100	2.34	0.089	0.079	12.5	0.75	5458	3463	330	105	D	S	0.2924	534.8	6.75	1810	19.2	520.0	6.56	1678	19.9	501.3	6.32	1559	20.4	470.9	5.94
80	84	1652	20.6	20.0	21.0	26.8	30.1	2.75	5.0	14.6	0.25	6.20	55.0	99	2.46	0.092	0.082	12.1	0.75	5377	3463	318	102	D	S	0.3308	546.4	6.48	1641	20.1	532.3	6.32	1547	20.7	515.6	6.12	1459	21.1	489.6	5.81
85	89	1502	21.5	20.9	21.6	27.4	30.7	2.85	5.2	15.0	0.25	6.67	54.6	98	2.58	0.094	0.084	11.8	0.75	5299	3463	307	100	D	S	0.3699	555.6	6.22	1493	21.0	542.3	6.07	1426	21.5	526.9	5.90	1360	21.9	504.5	5.65
90	94	1375	22.4	21.7	22.1	27.9	31.2	2.95	5.3	15.5	0.26	7.13	54.1	97	2.70	0.097	0.086	11.4	0.76	5223	3463	296	98	D	S	0.4095	563.0	5.97	1368	21.8	550.3	5.84	1316	22.3	535.8	5.68	1269	22.6	516.4	5.48
95	99	1266	23.2	22.6	22.6	28.4	31.7	3.05	5.5	15.8	0.26	7.59	53.6	96	2.81	0.099	0.089	11.1	0.76	5152	3463	287	96	D	S	0.4493	568.8	5.73	1260	22.6	556.5	5.61	1221	23.0	542.9	5.47	1185	23.3	525.8	5.30
100	104	1172	24.0	23.4	23.1	28.8	32.1	3.14	5.7	16.2	0.26	8.04	53.0	95	2.92	0.101	0.091	10.8	0.76	5085	3463	278	94	D	S	0.4891	573.2	5.50	1168	23.4	561.4	5.38	1138	23.7	548.4	5.26	1111	24.0	533.1	5.11
105	109	1090	24.8	24.1	23.6	29.2	32.5	3.22	5.8	16.5	0.26	8.48	52.5	94	3.03	0.104	0.093	10.6	0.76	5021	3463	270	92	D	S	0.5289	576.5	5.28	1086	24.2	565.0	5.17	1063	24.4	552.6	5.06	1040	24.7	538.7	4.93
110	114	1018	25.5	24.8	24.0	29.6	32.9	3.30	6.0	16.8	0.26	8.91	52.1	93	3.13	0.106	0.095	10.3	0.76	4963	3463	263	91	D	S	0.5686	578.8	5.07	1017	24.9	567.7	4.97	999	25.1	555.6	4.86	981	25.4	543.1	4.75
115	119	955	26.2	25.5	24.4	29.9	33.2	3.38	6.1	17.0	0.26	9.34	51.6	92	3.24	0.108	0.097	10.1	0.76	4908	3463	256	89	D	S	0.6076	580.3	4.87	954	25.6	569.5	4.77	940	25.8	557.8	4.68	926	26.0	546.4	4.58
120	124	900	26.9	26.2	24.7	30.2	33.5	3.46	6.2	17.2	0.26	9.76	51.1	91	3.33	0.110	0.099	9.9	0.76	4857	3463	249	88	D	S	0.6458	581.2	4.68	899	26.2	570.6	4.59	887	26.4	559.2	4.50	875	26.6	548.8	4.42
125	129	850	27.6	26.9	25.1	30.5	33.8	3.53	6.4	17.4	0.27	10.17	50.7	90	3.43	0.112	0.102	9.7	0.76	4811	3463	244	86	D	S	0.6841	581.5	4.50	850	26.9	571.1	4.42	841	27.1	560.0	4.33	831	27.2	550.4	4.26
130	134	806	28.2	27.5	25.4	30.8	34.1	3.60	6.5	17.6	0.27	10.57	50.3	89	3.52	0.114	0.103	9.5	0.76	4768	3463	238	85	D	S	0.7212	581.3	4.33	804	27.5	571.2	4.25	797	27.7	560.3	4.17	789	27.8	551.4	4.11
135	139	767	28.8	28.1	25.7	31.1	34.3	3.67	6.6	17.8	0.27	10.96	49.9	88	3.61	0.116	0.105	9.3	0.76	4729	3463	233	84	D	S	0.7572	580.8	4.17	765	28.1	570.8	4.10	759	28.3	560.1	4.02	752	28.4	551.8	3.96
140	144	731	29.4	28.7	26.0	31.3	34.5	3.73	6.7	17.9	0.27	11.35	49.6	87	3.70	0.118	0.107	9.1	0.76	4693	3463	229	83	D	S	0.7933	579.9	4.02	733	28.7	570.2	3.95	727	28.8	559.6	3.88	721	28.9	551.9	3.83
145	149	700	29.9	29.2	26.3	31.5	34.8	3.80	6.8	18.0	0.27	11.72	49.2	86	3.78	0.120	0.109	9.0	0.76	4661	3463	225	82	D	S	0.8269	578.8	3.88	698	29.2	569.2	3.81	693	29.4	558.8	3.74	689	29.5	551.6	3.70
150	154	671	30.5	29.8	26.5	31.8	35.0	3.85	6.9	18.1	0.27	12.09	48.9	86	3.86	0.122	0.110	8.9	0.77	4631	3463	221	81	D	S	0.8607	577.5	3.74	669	29.8	568.1	3.68	666	29.9	557.8	3.62	662	30.0	551.0	3.57
155	159	645	31.0	30.3	26.8	32.0	35.2	3.91	7.0	18.2	0.28	12.45	48.6	85	3.94	0.123	0.112	8.7	0.77	4605	3463	217	80	D	S	0.8932	576.1	3.62	645	30.3	566.8	3.56	643	30.4	556.6	3.49	639	30.5	550.1	3.45
160	164	621	31.5	30.8	27.0	32.2	35.3	3.97	7.1	18.3	0.28	12.80	48.4	84	4.01	0.125	0.114	8.6	0.77	4581	3463	214	79	D	S	0.9251	574.5	3.50	617	30.8	565.3	3.44	615	30.9	555.2	3.38	612	31.0	549.1	3.34
165	169	599	32.0	31.3	27.2	32.3	35.5	4.02	7.2	18.3	0.28	13.14	48.1	83	4.09	0.126	0.115	8.5	0.77	4560	3463	211	79	D	S	0.9563	572.8	3.38	600	31.3	563.7	3.33	598	31.4	553.8	3.27	596	31.4	548.0	3.24
170	174	579	32.5	31.7	27.4	32.5	35.7	4.07	7.3	18.4	0.28	13.48	47.9	82	4.16	0.128	0.117	8.4	0.78	4541	3463	208	78	D	S	0.9864	571.1	3.28	579	31.7	562.1	3.23	577	31.8	552.2	3.17	574	31.9	546.7	3.14
175	179	561	32.9	32.2	27.6	32.7	35.8	4.12	7.3	18.4	0.28	13.80	47.7	81	4.22	0.129	0.118	8.3	0.78	4525	3463	205	77	D	S	1.0148	569.3	3.18	562	32.2	560.4	3.13	560	32.3	550.6	3.07	558	32.3	545.3	3.04
180	184	544	33.4	32.6	27.8	32.8	36.0	4.17	7.4	18.4	0.28	14.12	47.5	81	4.29	0.131	0.119	8.2	0.78	4511	3463	203	77	D	S	1.0432	567.5	3.08	542	32.6	558.6	3.03	541	32.7	548.9	2.98	539	32.8	543.8	2.95
																				SI = 25 m	Initial Density = 30000 stems/ha																			
5	9	27871	1.3	1.3	2.5	4.0	4.3	0.70	1.3	0.9	0.57	0.38	4.0	208	0.60	0.151	0.138	3.4	0.05	3799	4456	213	106	D	S	0.0002	4.9	0.53	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	14	23701	2.8	2.7	4.3	6.9	7.7	0.80	1.6	2.1	0.43	0.51	14.9	156	0.65	0.094	0.084	8.9	0.19	4793	4456	364	120	D	S	0.0013	31.9	2.24	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	19	19119	4.2	4.0	6.0	9.7	11.0	0.92	1.9	3.3	0.36	0.69	26.8	140	0.72	0.075	0.066	13.0	0.34	5549	4456	463	131	D	S	0.0042	80.0	4.15	183	7.9	2.3	0.12	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	24	15106	5.6	5.3	7.7	12.2	13.9	1.06	2.1	4.5	0.32	0.91	36.8	131	0.81	0.067	0.059	15.6	0.47	6040	4456	513	138	D	S	0.0092	138.3	5.70	2264	8.2	37.0	1.52	1	12.5	0.1	0.00	0	0.0	0.0	0.00
25	29	11929	6.9	6.5	9.2	14.3	16.5	1.20	2.3	5.5	0.29	1.17	44.3	125	0.92	0.064	0.056	16.9	0.57	6321	4456	530	140	D	S	0.0166	197.9	6.76	4533	8.7	106.1	3.62	59	12.7	4.0	0.14	3	14.4	0.2	0.01
30	34	9514	8.2	7.8	10.6	16.2	18.7	1.34	2.6	6.5	0.28	1.47	49.7	120	1.03	0.063	0.055	17.4	0.64	6456	4456	528	140	D	S	0.0267	254.1	7.41	5555	9.5	181.6	5.30	444	13.0	33.6	0.98	60	14.6	5.4	0.16
35	39	7696	9.4	9.0	11.9	17.9	20.6	1.48	2.8	7.4	0.27	1.80	53.4	116	1.14	0.064	0.055	17.4	0.69	6494	4456	515	138	D	S	0.0396	304.8	7.76	5600	10.3	249.0	6.34	1122	13.4	96.6	2.46	329	14.8	32.0	0.81
40	44	6321	10.6	10.1	13.1	19.3	22.3	1.61	3.0	8.3	0.26	2.14	55.9	113	1.26	0.065	0.056	17.2	0.72	6469	4456	496	136	D	S	0.0553	349.5	7.89	5190	11.1	305.8	6.91	1786	13.9	175.4	3.96	772	15.2	84.5	1.91
45	49	5270	11.8	11.3	14.1	20.6	23.7	1.75	3.2	9.1	0.26	2.51	57.4	111	1.38	0.067	0.058	16.7	0.75	6404	4456	475	132	D	S	0.0737	388.3	7.88	4643	12.0	352.9	7.16	2232	14.4	250.9	5.09	1236	15.7	152.3	3.09
50	54	4456	12.9	12.4	15.1	21.7	25.0	1.87	3.4	9.9	0.26	2.89	58.2	109	1.50	0.069	0.060	16.2	0.76	6314	4456	454	129	D	S	0.0946	421.7	7.77	4077	13.0	391.9	7.22	2442	15.0	314.9	5.80	1592	16.2	221.6	4.08
55	59	3816	14.0	13.5	16.0	22.7	26.1	2.00	3.6	10.6	0.26	3.29	58.6	107	1.62	0.071	0.062	15.7	0.77	6210	4456	434	126	D	S	0.1180	450.1	7.59	3592	13.9	424.4	7.16	2480	15.7	366.2	6.18	1806	16.7	283.9	4.79
60	64	3307	15.0	14.5	16.9	23.6	27.1	2.12	3.9	11.3	0.25	3.69	58.6	106	1.74	0.074	0.064	15.1	0.77	6099	4456	414	122	D	S	0.1434	474.1	7.38	3170	14.9	451.5	7.03	2412	16.3	406.6	6.33	1898	17.3	336.5	5.24
65	69	2895	16.0	15.5	17.7	24.4	28.0	2.23	4.1	11.9	0.25	4.10	58.4	104	1.86	0.076	0.066	14.6	0.77	5985	4456	396	119	D	S	0.1707	494.2	7.13	2809	15.8	473.9	6.84	2287	17.0	438.4	6.33	1902	17.9	379.4	5.48
70	74	2560	17.0	16.4	18.4	25.1	28.8	2.34	4.2	12.5	0.25	4.51	58.0	103	1.98	0.079	0.069	14.1	0.77	5871	4456	379	115	D	S	0.1996	511.0	6.88	2500	16.7	492.4	6.63	2139	17.8	463.4	6.24	1853	18.5	413.8	5.57
75	79	2282	17.9	17.3	19.0	25.8	29.5	2.45	4.4	13.1	0.25	4.92	57.6	102	2.09	0.081	0.071	13.6	0.77	5759	4456	363	112	D	S	0.2300	524.8	6.62	2245	17.5	507.6	6.40	1988	18.5	483.2	6.10	1775	19.1	441.3	5.57
80	84	2051	18.8	18.2	19.6	26.4	30.1	2.55	4.6	13.6	0.25	5.33	57.0	101	2.21	0.084	0.073	13.1	0.77	5651	4456	349	109	D	S	0.2614	536.1	6.36	2025	18.4	520.1	6.17	1840	19.2	498.9	5.92	1680	19.8	463.3	5.50
85	89	1856	19.7	19.1	20.2	26.9	30.7	2.64	4.8	14.0	0.25	5.74	56.4	100	2.32	0.086	0.076	12.7	0.77	5548	4456	335	107	D	S	0.2938	545.2	6.11	1835	19.2	530.1	5.94	1701	19.9	511.4	5.73	1581	20.4	480.7	5.38
90	94	1691	20.5	19.9	20.7	27.4	31.2	2.74	5.0	14.5	0.25	6.15	55.8	99	2.43	0.089	0.078	12.3	0.76	5450	4456	323	104	D	S	0.3267	552.5	5.86	1676	20.0	538.2	5.71	1572	20.6	520.9	5.53	1484	21.1	494.6	5.25
95	99	1549	21.3	20.6	21.2	27.9	31.7	2.83	5.1	14.9	0.26	6.56	55.1	98	2.54	0.091	0.080	11.9	0.76	5357	4456	312	102	D	S	0.3603	558.1	5.62	1539	20.7	544.5	5.49	1462	21.3	528.6	5.32	1393	21.7	505.6	5.09
100	104	1427	22.0	21.4	21.7	28.3	32.1	2.91	5.3	15.2	0.26	6.96	54.5	97	2.65	0.093	0.082	11.6	0.76	5270	4456	301	99	D	S	0.3941	562.4	5.39	1420	21.5	549.4	5.27	1360	22.0	534.6	5.13	1304	22.4	514.0	4.93
105	109	1321	22.8	22.1	22.1	28.7	32.5	3.00	5.4	15.5	0.26	7.35	53.9	96	2.75	0.096	0.085	11.3	0.75	5188	4456	292	97	D	S	0.4282	565.6	5.18	1315	22.2	553.1	5.06	1270	22.6	539.1	4.93	1225	23.0	520.7	4.77
110	114	1229	23.5	22.8	22.5	29.1	32.9	3.08	5.6	15.8	0.26	7.74	53.2	95	2.85	0.098	0.087	11.0	0.75	5111	4456	283	95	D	S	0.4620	567.8	4.97	1223	22.9	555.7	4.86	1187	23.3	542.4	4.75	1151	23.6	525.9	4.60
115	119	1148	24.2	23.5	22.9	29.4	33.2	3.15	5.7	16.1	0.26	8.13	52.7	94	2.95	0.100	0.089	10.7	0.75	5040	4456	275	93	D	S	0.4957	569.1	4.77	1144	23.6	557.5	4.67	1117	23.9	544.7	4.57	1087	24.2	529.8	4.44
120	124	1076	24.8	24.2	23.2	29.7	33.5	3.23	5.8	16.3	0.26	8.51	52.1	93	3.05	0.103	0.091	10.5	0.75	4974	4456	267	92	D	S	0.5296	569.8	4.59	1072	24.2	558.5	4.49	1049	24.5	546.2	4.40	1026	24.8	532.7	4.29
125	129	1013	25.5	24.8	23.6	30.0	33.8	3.30	6.0	16.6	0.26	8.88	51.6	92	3.14	0.105	0.093	10.2	0.74	4912	4456	260	90	D	S	0.5626	569.9	4.41	1009	24.8	558.9	4.32	990	25.1	547.0	4.23	971	25.3	534.6	4.14
130	134	956	26.1	25.4	23.9	30.3	34.1	3.36	6.1	16.8	0.27	9.25	51.1	91	3.23	0.107	0.095	10.0	0.74	4855	4456	254	88	D	S	0.5958	569.6	4.24	955	25.4	558.8	4.16	940	25.7	547.2	4.08	924	25.9	535.9	3.99
135	139	906	26.7	26.0	24.2	30.5	34.3	3.43	6.2	16.9	0.27	9.61	50.6	90	3.32	0.109	0.097	9.8	0.74	4802	4456	248	87	D	S	0.6278	568.8	4.08	904	26.0	558.3	4.01	892	26.2	547.0	3.93	878	26.4	536.5	3.85
140	144	860	27.2	26.5	24.5	30.8	34.5	3.49	6.3	17.1	0.27	9.96	50.1	89	3.41	0.111	0.099	9.6	0.74	4754	4456	243	86	D	S	0.6601	567.7	3.93	857	26.6	557.4	3.86	848	26.8	546.4	3.79	837	26.9	536.6	3.72
145	149	820	27.8	27.1	24.7	31.0	34.8	3.55	6.4	17.2	0.27	10.31	49.7	89	3.49	0.113	0.100	9.4	0.74	4709	4456	237	84	D	S	0.6906	566.3	3.79	817	27.1	556.3	3.73	808	27.3	545.4	3.65	799	27.4	536.3	3.59
150	154	783	28.3	27.6	25.0	31.2	35.0	3.61	6.5	17.3	0.27	10.65	49.3	88	3.57	0.114	0.102	9.3	0.74	4668	4456	233	83	D	S	0.7213	564.8	3.66	782	27.6	554.9	3.60	774	27.8	544.2	3.53	766	27.9	535.7	3.47
155	159	749	28.8	28.1	25.2	31.4	35.2	3.67	6.6	17.4	0.27	10.98	48.9	87	3.65	0.116	0.104	9.1	0.74	4630	4456	228	82	D	S	0.7517	563.0	3.53	749	28.1	553.3	3.47	742	28.3	542.8	3.41	735	28.4	534.8	3.36
160	164	719	29.3	28.6	25.4	31.6	35.3	3.73	6.7	17.5	0.28	11.31	48.6	86	3.73	0.118	0.106	9.0	0.74	4596	4456	224	81	D	S	0.7804	561.1	3.42	718	28.6	551.6	3.36	713	28.8	541.2	3.29	707	28.9	533.7	3.25
165	169	691	29.8	29.1	25.6	31.8	35.5	3.78	6.8	17.6	0.28	11.63	48.2	85	3.80	0.120	0.107	8.8	0.74	4564	4456	221	80	D	S	0.8091	559.1	3.30	690	29.1	549.7	3.25	685	29.2	539.5	3.19	680	29.3	532.4	3.15
170	174	666	30.3	29.5	25.8	32.0	35.7	3.83	6.9	17.6	0.28	11.95	47.9	85	3.87	0.121	0.109	8.7	0.74	4535	4456	217	80	D	S	0.8363	557.0	3.20	664	29.6	547.8	3.14	660	29.7	537.7	3.09	655	29.8	530.9	3.05
175	179	643	30.7	30.0	26.0	32.1	35.8	3.88	7.0	17.7	0.28	12.26	47.7	84	3.94	0.123	0.110	8.6	0.74	4509	4456	214	79	D	S	0.8630	554.9	3.10	642	30.0	545.7	3.04	639	30.1	535.8	2.99	635	30.2	529.4	2.95
180	184	621	31.2	30.4	26.2	32.3	36.0	3.93	7.1	17.7	0.28	12.56	47.4	83	4.01	0.124	0.112	8.5	0.74	4486	4456	211	78	D	S	0.8900	552.7	3.00	621	30.4	543.7	2.95	619	30.5	533.8	2.90	615	30.6	527.7	2.86

Table A135. Yield Tables for Seed-origin Natural and Regenerated Lodgepole Pine Stands.

Bh age	Total age	Utilization standard (Util. std.) = 0/0 (total volume)																											Util. std. = 8/6				Util. std. = 13/7				Util. std = 15/10			
		N	D_q	D	H	H_{DC}	H_{TOP}	CW	CLen	HTC	CR	CA	BA	SLC	ADT	RS_{DC}	RS_{TOP}	RD	RDI	SDI	SDF	CCF	CC	Den	TPR	V/tree	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai	N	D	V/ha	Mai
SI = 25 m Initial Density = 50000 stems/ha																																								
5	9	45850	1.1	1.0	2.3	3.9	4.3	0.68	1.1	0.9	0.54	0.37	4.4	240	0.47	0.118	0.108	4.2	0.06	5892	6191	303	168	D	S	0.0001	5.0	0.54	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	14	37952	2.4	2.2	3.9	6.9	7.7	0.76	1.4	2.0	0.41	0.46	17.0	169	0.51	0.075	0.066	11.0	0.23	6819	6191	487	176	D	S	0.0009	33.2	2.33	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	19	29696	3.6	3.4	5.5	9.6	11.0	0.87	1.6	3.1	0.34	0.60	30.1	149	0.58	0.060	0.053	15.9	0.40	7348	6191	595	178	D	S	0.0027	81.5	4.23	19	7.7	0.2	0.01	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	24	22832	4.8	4.5	7.0	12.0	13.9	0.98	1.8	4.0	0.31	0.77	40.6	137	0.66	0.055	0.048	18.6	0.53	7574	6191	640	176	D	S	0.0060	137.8	5.68	947	7.9	13.6	0.56	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	29	17633	5.9	5.6	8.4	14.2	16.5	1.10	2.0	4.9	0.29	0.98	48.3	129	0.75	0.053	0.046	19.9	0.63	7615	6191	646	172	D	S	0.0110	193.7	6.62	3620	8.3	66.7	2.28	4	12.5	0.3	0.01	0	0.0	0.0	0.00
30	34	13815	7.0	6.7	9.6	16.0	18.7	1.21	2.2	5.8	0.28	1.21	53.6	123	0.85	0.053	0.046	20.2	0.70	7549	6191	632	167	D	S	0.0178	245.3	7.16	5615	8.8	138.7	4.05	103	12.7	7.3	0.21	4	14.4	0.4	0.01
35	39	11017	8.1	7.7	10.7	17.6	20.6	1.33	2.4	6.5	0.27	1.46	57.0	118	0.95	0.054	0.046	20.0	0.74	7425	6191	607	161	D	S	0.0264	291.3	7.42	6381	9.4	208.1	5.30	482	12.9	37.3	0.95	71	14.5	6.3	0.16
40	44	8944	9.2	8.8	11.8	19.0	22.3	1.45	2.6	7.3	0.26	1.73	59.2	115	1.06	0.056	0.047	19.5	0.77	7269	6191	579	155	D	S	0.0371	331.6	7.49	6318	10.1	267.2	6.04	1103	13.3	94.3	2.13	292	14.8	28.4	0.64
45	49	7384	10.2	9.8	12.8	20.3	23.7	1.57	2.8	8.0	0.26	2.02	60.4	112	1.16	0.057	0.049	18.9	0.78	7098	6191	550	149	D	S	0.0496	366.6	7.44	5866	10.8	315.7	6.41	1727	13.7	164.1	3.33	666	15.1	71.3	1.45
50	54	6191	11.2	10.7	13.7	21.3	25.0	1.68	3.0	8.7	0.26	2.33	61.0	110	1.27	0.060	0.051	18.2	0.79	6921	6191	522	144	D	S	0.0641	396.7	7.31	5248	11.6	355.0	6.54	2195	14.1	232.3	4.28	1089	15.4	128.0	2.36
55	59	5262	12.2	11.7	14.5	22.3	26.1	1.79	3.2	9.3	0.26	2.64	61.1	108	1.38	0.062	0.053	17.5	0.79	6744	6191	495	139	D	S	0.0803	422.5	7.13	4684	12.4	387.7	6.54	2461	14.6	291.3	4.91	1451	15.8	188.2	3.18
60	64	4528	13.1	12.6	15.2	23.2	27.1	1.89	3.4	9.9	0.26	2.96	60.9	107	1.49	0.064	0.055	16.8	0.79	6571	6191	470	134	D	S	0.0981	444.4	6.91	4164	13.2	414.6	6.45	2564	15.1	339.6	5.28	1709	16.3	244.8	3.81
65	69	3940	14.0	13.4	15.9	23.9	28.0	2.00	3.6	10.5	0.26	3.29	60.5	106	1.59	0.067	0.057	16.2	0.79	6403	6191	447	129	D	S	0.1175	463.0	6.68	3692	13.9	436.8	6.31	2554	15.7	378.1	5.46	1860	16.7	294.3	4.25
70	74	3462	14.8	14.3	16.6	24.6	28.8	2.09	3.8	11.1	0.26	3.62	59.9	104	1.70	0.069	0.059	15.5	0.79	6243	6191	426	125	D	S	0.1382	478.6	6.44	3297	14.7	455.2	6.13	2473	16.2	408.5	5.50	1924	17.2	335.8	4.52
75	79	3069	15.7	15.1	17.1	25.3	29.5	2.19	4.0	11.6	0.26	3.95	59.2	103	1.81	0.071	0.061	15.0	0.78	6091	6191	407	121	D	S	0.1602	491.6	6.20	2955	15.5	470.4	5.93	2354	16.8	432.4	5.45	1924	17.7	369.9	4.67
80	84	2742	16.5	15.9	17.7	25.8	30.1	2.28	4.1	12.1	0.26	4.29	58.5	102	1.91	0.074	0.063	14.4	0.77	5946	6191	389	118	D	S	0.1832	502.3	5.96	2663	16.2	482.9	5.73	2220	17.4	451.3	5.36	1884	18.2	397.5	4.72
85	89	2468	17.3	16.7	18.2	26.3	30.7	2.37	4.3	12.5	0.26	4.62	57.7	101	2.01	0.076	0.066	13.9	0.77	5810	6191	373	114	D	S	0.2071	511.0	5.72	2409	16.9	493.1	5.52	2069	18.0	465.4	5.21	1818	18.7	419.9	4.70
90	94	2236	18.0	17.4	18.7	26.8	31.2	2.45	4.5	12.9	0.26	4.96	56.9	100	2.11	0.079	0.068	13.4	0.76	5682	6191	358	111	D	S	0.2317	518.1	5.50	2195	17.6	501.3	5.32	1937	18.6	477.3	5.06	1740	19.2	437.8	4.64
95	99	2038	18.7	18.1	19.1	27.3	31.7	2.54	4.6	13.3	0.26	5.29	56.1	99	2.22	0.081	0.070	13.0	0.75	5562	6191	344	108	D	S	0.2569	523.6	5.27	2005	18.3	507.9	5.12	1808	19.2	486.7	4.90	1653	19.7	452.1	4.55
100	104	1868	19.4	18.8	19.6	27.7	32.1	2.62	4.8	13.7	0.26	5.62	55.3	99	2.31	0.084	0.072	12.6	0.75	5449	6191	331	105	D	S	0.2826	527.9	5.06	1843	19.0	513.0	4.92	1691	19.7	493.9	4.74	1558	20.3	462.9	4.44
105	109	1720	20.1	19.5	19.9	28.0	32.5	2.69	4.9	14.0	0.26	5.95	54.6	98	2.41	0.086	0.074	12.2	0.74	5344	6191	320	102	D	S	0.3088	531.1	4.86	1701	19.6	517.0	4.73	1583	20.3	499.5	4.57	1477	20.8	472.1	4.32
110	114	1592	20.8	20.1	20.3	28.4	32.9	2.77	5.0	14.3	0.26	6.28	53.8	97	2.51	0.088	0.076	11.8	0.74	5245	6191	309	100	D	S	0.3351	533.4	4.67	1576	20.2	519.9	4.55	1481	20.9	503.7	4.41	1396	21.3	479.3	4.19
115	119	1479	21.4	20.7	20.7	28.7	33.2	2.84	5.2	14.6	0.26	6.60	53.1	96	2.60	0.091	0.078	11.5	0.73	5153	6191	299	98	D	S	0.3617	534.9	4.48	1468	20.8	521.9	4.38	1393	21.4	506.8	4.25	1323	21.8	484.9	4.07
120	124	1380	22.0	21.3	21.0	29.0	33.5	2.91	5.3	14.8	0.26	6.93	52.4	95	2.69	0.093	0.080	11.2	0.72	5068	6191	290	96	D	S	0.3881	535.6	4.31	1370	21.4	523.1	4.21	1310	21.9	508.9	4.10	1252	22.3	489.2	3.94
125	129	1293	22.6	21.9	21.3	29.3	33.8	2.97	5.4	15.1	0.26	7.24	51.8	94	2.78	0.095	0.082	10.9	0.72	4987	6191	282	94	D	S	0.4144	535.8	4.14	1285	22.0	523.8	4.05	1235	22.5	510.2	3.95	1187	22.8	492.4	3.81
130	134	1214	23.2	22.5	21.6	29.5	34.1	3.04	5.6	15.3	0.27	7.56	51.2	94	2.87	0.097	0.084	10.6	0.71	4913	6191	274	92	D	S	0.4411	535.5	3.99	1206	22.6	523.9	3.90	1166	23.0	510.9	3.81	1126	23.3	494.6	3.68
135	139	1145	23.7	23.0	21.9	29.8	34.3	3.10	5.7	15.5	0.27	7.87	50.6	93	2.96	0.099	0.086	10.4	0.71	4843	6191	267	90	D	S	0.4671	534.8	3.84	1141	23.1	523.5	3.76	1108	23.5	511.0	3.67	1075	23.8	496.1	3.56
140	144	1082	24.3	23.6	22.1	30.0	34.5	3.16	5.8	15.6	0.27	8.17	50.0	92	3.04	0.101	0.088	10.2	0.70	4779	6191	260	88	D	S	0.4933	533.8	3.70	1077	23.6	522.8	3.62	1049	24.0	510.7	3.54	1021	24.3	497.0	3.44
145	149	1026	24.8	24.1	22.4	30.2	34.8	3.22	5.9	15.8	0.27	8.47	49.5	91	3.12	0.103	0.090	9.9	0.70	4718	6191	254	87	D	S	0.5189	532.4	3.57	1023	24.1	521.7	3.50	1000	24.5	510.0	3.42	977	24.7	497.3	3.33
150	154	975	25.3	24.6	22.6	30.4	35.0	3.27	6.0	15.9	0.27	8.77	49.0	90	3.20	0.105	0.092	9.7	0.69	4663	6191	248	86	D	S	0.5444	530.8	3.44	972	24.6	520.4	3.37	952	24.9	509.0	3.30	932	25.2	497.2	3.22
155	159	929	25.8	25.1	22.8	30.6	35.2	3.33	6.1	16.1	0.27	9.06	48.5	90	3.28	0.107	0.093	9.6	0.69	4611	6191	243	84	D	S	0.5695	529.1	3.32	925	25.1	518.8	3.26	908	25.4	507.7	3.19	891	25.6	496.8	3.12
160	164	888	26.3	25.5	23.0	30.8	35.3	3.38	6.2	16.2	0.28	9.35	48.0	89	3.36	0.109	0.095	9.4	0.69	4563	6191	238	83	D	S	0.5936	527.1	3.21	885	25.6	517.1	3.15	871	25.8	506.3	3.08	856	26.1	496.0	3.02
165	169	850	26.7	26.0	23.2	31.0	35.5	3.43	6.3	16.3	0.28	9.64	47.6	88	3.43	0.111	0.097	9.2	0.68	4518	6191	233	82	D	S	0.6178	525.1	3.10	847	26.0	515.2	3.04	834	26.3	504.6	2.98	821	26.5	495.0	2.92
170	174	815	27.2	26.4	23.4	31.1	35.7	3.48	6.4	16.4	0.28	9.92	47.2	87	3.50	0.112	0.098	9.1	0.68	4477	6191	229	81	D	S	0.6416	522.9	3.00	813	26.5	513.2	2.94	802	26.7	502.8	2.89	790	26.9	493.8	2.83
175	179	783	27.6	26.9	23.6	31.3	35.8	3.53	6.5	16.4	0.28	10.19	46.9	87	3.57	0.114	0.100	8.9	0.68	4439	6191	225	80	D	S	0.6650	520.7	2.90	781	26.9	511.2	2.85	772	27.1	500.9	2.79	762	27.3	492.4	2.75
180	184	754	28.0	27.3	23.8	31.4	36.0	3.58	6.6	16.5	0.28	10.46	46.5	86	3.64	0.116	0.101	8.8	0.68	4403	6191	221	79	D	S	0.6875	518.4	2.81	753	27.3	509.0	2.76	745	27.5	499.0	2.71	736	27.7	490.8	2.66
SI = 25 m Initial Density = 80000 stems/ha																																								
5	9	72454	0.9	0.8	2.1	3.9	4.3	0.67	1.0	0.9	0.51	0.36	4.6	279	0.37	0.095	0.086	4.8	0.07	8874	8471	420	258	D	S	0.0001	4.9	0.53	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
10	14	58472	2.0	1.9	3.6	6.8	7.7	0.74	1.2	1.9	0.39	0.43	18.6	185	0.41	0.061	0.053	13.1	0.26	9504	8471	634	251	D	S	0.0006	33.2	2.33	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
15	19	44517	3.1	2.9	5.0	9.5	11.0	0.82	1.4	2.8	0.33	0.53	32.6	159	0.47	0.050	0.043	18.6	0.44	9562	8471	743	237	D	S	0.0018	79.6	4.13	0	0.0	0.0	0.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
20	24	33431	4.1	3.8	6.3	11.9	13.9	0.91	1.6	3.6	0.30	0.66	43.3	144	0.55	0.046	0.039	21.5	0.58	9342	8471	774	222	D	S	0.0039	131.5	5.42	213	7.7	2.7	0.11	0	0.0	0.0	0.00	0	0.0	0.0	0.00
25	29	25345	5.1	4.8	7.5	14.0	16.5	1.01	1.8	4.3	0.29	0.82	50.8	133	0.63	0.045	0.038	22.6	0.67	9019	8471	765	208	D	S	0.0072	181.4	6.20	1958	7.9	29.4	1.00	0	0.0	0.0	0.00	0	0.0	0.0	0.00
30	34	19573	6.0	5.7	8.6	15.8	18.7	1.11	2.0	5.0	0.28	1.00	55.8	126	0.71	0.045	0.038	22.7	0.73	8673	8471	735	195	D	S	0.0116	226.3	6.60	4413	8.3	84.8	2.47	9	12.4	0.6	0.02	0	0.0	0.0	0.00
35	39	15433	7.0	6.6	9.6	17.4	20.6	1.21	2.1	5.7	0.27	1.19	58.8	120	0.80	0.046	0.039	22.3	0.76	8334	8471	698	184	D	S	0.0172	265.8	6.77	6111	8.8	149.1	3.80	102	12.6	7.2	0.18	5	14.3	0.4	0.01
40	44	12415	7.9	7.5	10.5	18.7	22.3	1.31	2.3	6.3	0.27	1.40	60.6	116	0.90	0.048	0.040	21.6	0.78	8012	8471	659	174	D	S	0.0242	300.0	6.78	6774	9.3	207.8	4.69	404	12.9	31.0	0.70	50	14.5	4.5	0.10
45	49	10171	8.8	8.4	11.3	19.9	23.7	1.41	2.5	6.9	0.27	1.63	61.5	113	0.99	0.050	0.042	20.8	0.79	7711	8471	621	166	D	S	0.0324	329.6	6.69	6601	9.9	255.9	5.19	901	13.2	74.8	1.52	199	14.7	19.0	0.39
50	54	8471	9.6	9.2	12.1	21.0	25.0	1.50	2.7	7.4	0.27	1.86	61.8	111	1.09	0.052	0.043	19.9	0.79	7431	8471	585	158	D	S	0.0419	355.1	6.54	6251	10.5	296.2	5.46	1448	13.5	130.2	2.40	467	14.9	47.9	0.88
55	59	7158	10.5	10.0	12.8	21.9	26.1	1.60	2.9	8.0	0.26	2.10	61.7	109	1.18	0.054	0.045	19.1	0.79	7171	8471	552	151	D	S	0.0527	377.0	6.36	5746	11.1	329.0	5.55	1911	13.8	187.0	3.16	803	15.2	88.7	1.50
60	64	6127	11.3	10.8	13.5	22.7	27.1	1.69	3.0	8.5	0.26	2.35	61.3	107	1.28	0.056	0.047	18.2	0.79	6929	8471	522	144	D	S	0.0646	395.8	6.16	5207	11.7	355.6	5.53	2234	14.2	238.8	3.72	1136	15.5	135.4	2.11
65	69	5304	12.1	11.6	14.1	23.5	28.0	1.78	3.2	9.0	0.26	2.61	60.7	106	1.37	0.059	0.049	17.5	0.78	6704	8471	494	138	D	S	0.0776	411.8	5.94	4662	12.4	377.2	5.45	2421	14.6	282.9	4.08	1414	15.8	182.3	2.63
70	74	4639	12.8	12.3	14.6	24.1	28.8	1.86	3.4	9.5	0.26	2.87	59.9	104	1.47	0.061	0.051	16.7	0.77	6496	8471	469	133	D	S	0.0917	425.4	5.73	4200	13.0	395.3	5.32	2494	15.0	319.2	4.30	1617	16.2	225.8	3.04
75	79	4094	13.6	13.0	15.2	24.7	29.5	1.95	3.5	9.9	0.26	3.13	59.1	103	1.56	0.063	0.053	16.0	0.76	6302	8471	446	128	D	S	0.1067	436.9	5.51	3789	13.6	410.2	5.17	2490	15.4	348.4	4.40	1748	16.5	264.1	3.33
80	84	3642	14.3	13.7	15.6	25.3	30.1	2.03	3.7	10.4	0.26	3.39	58.2	102	1.66	0.066	0.055	15.4	0.75	6121	8471	425	124	D	S	0.1226	446.5	5.30	3412	14.2	422.5	5.01	2399	15.9	370.0	4.39	1815	16.9	296.9	3.52
85	89	3264	15.0	14.4	16.1	25.8	30.7	2.11	3.8	10.8	0.26	3.66	57.3	101	1.75	0.068	0.057	14.8	0.75	5953	8471	406	119	D	S	0.1392	454.4	5.09	3099	14.8	432.6	4.85	2317	16.4	389.0	4.36	1836	17.3	324.3	3.63
90	94	2945	15.6	15.0	16.5	26.2	31.2	2.18	4.0	11.1	0.27	3.93	56.4	101	1.84	0.070	0.059	14.3	0.74	5797	8471	388	116	D	S	0.1565	461.0	4.89	2823	15.4	441.0	4.68	2215	16.8	404.2	4.29	1821	17.7	347.1	3.68
95	99	2673	16.3	15.7	16.9	26.6	31.7	2.25	4.1	11.5	0.27	4.19	55.5	100	1.93	0.073	0.061	13.8	0.73	5651	8471	372	112	D	S	0.1744	466.2	4.70	2581	16.0	447.7	4.51	2106	17.3	416.2	4.19	1762	18.1	364.3	3.67
100	104	2440	16.9	16.3	17.3	27.0	32.1	2.32	4.3	11.9	0.27	4.46	54.6	99	2.02	0.075	0.063	13.3	0.72	5515	8471	357	109	D	S	0.1928	470.4	4.51	2366	16.6	453.1	4.35	1994	17.8	425.7	4.08	1711	18.5	379.9	3.64
105	109	2238	17.5	16.9	17.6	27.4	32.5	2.39	4.4	12.2	0.27	4.72	53.8	98	2.11	0.077	0.065	12.9	0.71	5389	8471	344	106	D	S	0.2116	473.6	4.33	2183	17.1	457.4	4.19	1886	18.2	433.2	3.96	1653	19.0	392.7	3.59
110	114	2063	18.1	17.4	17.9	27.7	32.9	2.46	4.6	12.5	0.27	4.99	52.9	98	2.20	0.079	0.067	12.5	0.70	5271	8471	331	103	D	S	0.2307	476.0	4.17	2019	17.7	460.7	4.03	1780	18.7	439.0	3.84	1587	19.4	403.0	3.53
115	119	1909	18.6	18.0	18.3	28.0	33.2	2.52	4.7	12.7	0.27	5.25	52.1	97	2.29	0.082	0.069	12.1	0.69	5161	8471	320	100	D	S	0.2502	477.7	4.01	1874	18.2	463.1	3.88	1680	19.1	443.5	3.72	1520	19.8	411.3	3.45
120	124	1774	19.2	18.5	18.5	28.3	33.5	2.59	4.8	13.0	0.27	5.51	51.4	96	2.37	0.084	0.071	11.7	0.68	5058	8471	309	98	D	S	0.2698	478.7	3.85	1745	18.8	464.8	3.74	1588	19.6	446.9	3.60	1454	20.2	417.9	3.36
125	129	1655	19.7	19.1	18.8	28.5	33.8	2.65	4.9	13.2	0.27	5.77	50.6	96	2.46	0.086	0.073	11.4	0.68	4962	8471	300	96	D	S	0.2896	479.3	3.71	1632	19.3	466.0	3.60	1502	20.0	449.3	3.48	1390	20.6	423.2	3.27
130	134	1548	20.3	19.6	19.1	28.8	34.1	2.71	5.1	13.5	0.27	6.03	49.9	95	2.54	0.088	0.075	11.1	0.67	4873	8471	291	93	D	S	0.3096	479.3	3.57	1529	19.8	466.5	3.47	1421	20.5	451.0	3.36	1326	21.0	427.3	3.18
135	139	1454	20.8	20.1	19.3	29.0	34.3	2.76	5.2	13.7	0.28	6.29	49.3	94	2.62	0.090	0.076	10.8	0.66	4789	8471	282	91	D	S	0.3294	478.9	3.44	1439	20.2	466.7	3.35	1348	20.9	452.0	3.25	1268	21.4	430.4	3.09
140	144	1369	21.3	20.6	19.5	29.2	34.5	2.82	5.3	13.9	0.28	6.54	48.6	94	2.70	0.092	0.078	10.5	0.66	4711	8471	274	90	D	S	0.3494	478.3	3.32	1355	20.7	466.4	3.23	1280	21.3	452.5	3.14	1211	21.8	432.8	3.00
145	149	1293	21.7	21.0	19.8	29.4	34.8	2.87	5.4	14.0	0.28	6.79	48.0	93	2.78	0.094	0.080	10.3	0.65	4638	8471	267	88	D	S	0.3691	477.3	3.20	1281	21.2	465.8	3.12	1216	21.7	452.6	3.03	1158	22.2	434.4	2.91
150	154	1224	22.2	21.5	20.0	29.6	35.0	2.93	5.5	14.2	0.28	7.04	47.4	92	2.86	0.096	0.082	10.1	0.64	4570	8471	260	86	D	S	0.3889	476.0	3.09	1215	21.6	464.9	3.01	1161	22.2	452.3	2.93	1109	22.6	435.5	2.82
155	159	1162	22.7	22.0	20.2	29.8	35.2	2.98	5.6	14.3	0.28	7.28	46.9	91	2.93	0.098	0.083	9.8	0.64	4506	8471	254	85	D	S	0.4084	474.6	2.98	1152	22.1	463.8	2.91	1106	22.6	451.7	2.84	1062	23.0	436.1	2.74
160	164	1105	23.1	22.4	20.3	30.0	35.3	3.03	5.7	14.5	0.28	7.53	46.4	91	3.01	0.100	0.085	9.6	0.63	4447	8471	248	83	D	S	0.4281	473.0	2.88	1098	22.5	462.5	2.82	1058	23.0	450.8	2.74	1019	23.3	436.3	2.66
165	169	1054	23.6	22.8	20.5	30.2	35.5	3.07	5.8	14.6	0.28	7.77	45.9	90	3.08	0.102	0.087	9.5	0.63	4391	8471	243	82	D	S	0.4472	471.3	2.78	1048	22.9	461.0	2.72	1013	23.3	449.7	2.66	980	23.7	436.2	2.58
170	174	1007	24.0	23.2	20.7	30.3	35.7	3.12	5.9	14.7	0.29	8.01	45.4	89	3.15	0.104	0.088	9.3	0.62	4339	8471	238	81	D	S	0.4661	469.4	2.69	1001	23.3	459.4	2.64	971	23.7	448.4	2.57	941	24.1	435.8	2.50
175	179	964	24.4	23.6	20.9	30.4	35.8	3.17	6.0	14.8	0.29	8.24	45.0	89	3.22	0.106	0.090	9.1	0.62	4291	8471	233	79	D	S	0.4850	467.5	2.61	958	23.7	457.6	2.55	932	24.1	446.9	2.49	905	24.4	435.1	2.43
180	184	924	24.8	24.0	21.0	30.6	36.0	3.21	6.1	14.9	0.29	8.47	44.6	88	3.29	0.108	0.091	9.0	0.61	4246	8471	228	78	D	S	0.5037	465.4	2.53	920	24.1	455.8	2.47	896	24.5	445.3	2.42	873	24.8	434.2	2.36

Appendix 2. Metric Conversion Chart

1 cm	=	0.39370 in.
1 m	=	3.28083 ft.
1 m	=	1.09361 yards
1 ha	=	2.47105 acres
1 m^2	=	10.76385 ft^2
1 m^3	=	35.31435 ft^3
1 m^2/ha	=	4.3560 ft^2/acre
1 m^3/ha	=	14.2913 ft^3/acre
1 ha	=	10000 m^2
1 km	=	1000 m
1 km	=	0.62137 miles
1 km^2	=	100 ha
1 km^2	=	0.3861 $miles^2$
1 in.	=	2.5400 cm
1 ft.	=	0.3048 m
1 acre	=	0.4047 ha
1 ft^2	=	0.09290 m^2
1 ft^3	=	0.02832 m^3
1 ft^2/acre	=	0.2296 m^2/ha
1 ft^3/acre	=	0.06997 m^3/ha
1 mile	=	1.6093 km
1 $mile^2$	=	2.5898 km^2
1 $mile^2$	=	258.9846 ha
1 fbm	=	1 ft. × 1 ft. × 1 in.
1 fbm	=	0.0023597 m^3
1 Mfbm	=	1000 foot board measure (fbm)
1 Mfbm	=	2.3597 m^3
1 township	=	6 miles × 6 miles = 36 $mile^2$
1 township	=	9.6558 km × 9.6558 km = 93.2345 km^2
1 township	=	9323.45 ha
1 m^3 log	≈	233 board feet lumber (provincial average conversion factor)
1 Mfbm	≈	4.3 m^3 log (provincial average conversion factor)



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